

AD-A217 429

# **PROGRAM ACQUISITION COSTS BY WEAPON SYSTEM**



***DEPARTMENT OF DEFENSE BUDGET  
FOR FISCAL YEAR 1991***

January 29, 1990

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convenience and information of the public  
and the press. It is based on the best  
information available at the time  
of publication.

DEPARTMENT OF DEFENSE FY 1991 BUDGET

PROGRAM ACQUISITION COSTS

(\$ in Millions)

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AIRCRAFT

Army

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Page No.</u>
AH-64	Attack Helicopter	1,078.4	1,602.0	164.7	1
CH-47	Modernization	283.4	275.8	294.2	2
OH-58D	AHIP	230.9	192.3	73.8	3
RC-12D	GUARDRAIL	73.5	74.0	87.4	4
UH-60A 3/	BLACKHAWK	492.0	430.7	469.3	5
C-212	GRISLY HUNTER	-	9.8	10.4	6
C-23	SHERPA	-	42.0	-	7

Navy

AH-1W	SEA COBRA	66.4	76.8	14.6	8
AV-8B	HARRIER	610.3	585.0	565.5	9
CH/MH-53	SUPER STALLION	243.9	237.7	479.4	10
E-2C	HAWKEYE	398.2	379.2	448.5	11
E-6A	HERMES	402.6	37.0	3.9	12
EA-6B	PROWLER	555.4	157.6	374.1	13
F-14D	TOMCAT	1,103.9	1,635.2	1,118.3	14
F/A-18	HORNET	2,516.4	2,064.3	2,123.3	15
KC-130T	Cargo/Refueling	45.0	50.0	25.0	16
SH-60B	SEAHAWK (LAMPS III)	120.4	206.9	189.8	17
SH-60F	CV ASW Helicopter	373.3	107.2	288.0	18
T-45TS	GOSHAWK	519.7	160.2	344.8	19
HH-60H 3/	CSAR Helicopter	23.8	9.0	-	20
V-22 2/-	OSPREY	635.1	255.0	-	21
LRAACA	Long Range ASW Aircraft	64.4	198.9	255.4	22
T-44A	Trainer Aircraft	-	12.4	.1	23
C-20	Jet Transport	-	24.8	25.0	24

Air Force

AC-130U	Gunship	400.8	262.6	55.1	25
C-17	Airlift Aircraft	2,014.4	2,319.3	2,716.8	26
C-130H	HERCULES	406.9	308.2	120.0	27
CAP	Civil Air Patrol	1.8	2.5	1.9	28
F-15E	EAGLE	1,554.8	1,534.9	1,844.7	29
F-16	FALCON	3,199.3	3,220.2	2,972.7	30
KC-135	Re-engining	750.5	574.6	459.7	31
LANTIRN	Night Precision Attack	709.0	261.8	200.3	32
MC-130H	Combat TALON	377.4	227.0	139.2	33
MH-60G	PAVE HAWK	78.5	66.9	43.5	34
TTTS	Tanker Transport Training	13.6	148.0	195.5	35
E-8A	JSTARS	232.1	88.1	232.5	36
C-27A	SOUTHCOM Mission Support	-	83.6	90.6	37
B-2	Adv. Tech. Bomber	5,307.6	4,302.1	5,535.9	38
HC-130	Tanker Rescue Aircraft	-	42.6	-	39
C-20	Jet Transport	-	49.2	-	40
C-26	Transport Aircraft	-	36.0	-	41

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DEPARTMENT OF DEFENSE FY 1991 BUDGET

PROGRAM ACQUISITION COSTS

(\$ in Millions)

<u>MISSILES</u>		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Page No.</u>
<u>Army</u>					
ATACMS	Army Tactical Missile System	144.3	134.5	192.4	42
CHAPARRAL	Air Defense Missile	60.9	25.4	-	43
HELLFIRE 4/	Laser Missile System	219.5	127.5	153.8	44
LOS-F-H	Forward, Heavy Air Defense Missile	157.8	263.7	271.8	45
MLRS	Multiple Launch Rocket System	463.7	517.5	389.0	46
PATRIOT	Air Defense Missile	870.3	983.8	909.2	47
PMS STINGER	Air Defense Missile	98.8	122.4	123.1	48
STINGER 5/	Air Defense Missile	241.3	114.7	252.4	49
TOW-2 1/-	Anti-Armor Missile	167.7	159.2	262.4	50
AAWS-M	Advanced Anti-Tank Weapon System	106.2	137.9	92.3	51
<u>Navy</u>					
AMRAAM 2/	Air-Air Missile	47.3	115.6	426.6	52
HARM 2/-	Air-Surface Missile	318.0	315.0	351.4	53
HARPOON	Anti-Ship Missile	201.1	224.4	244.3	54
HELLFIRE 4/	Anti-Armor Missile	35.6	51.9	43.2	55
MAVERICK 2/	Air-Ground Missile	84.0	67.8	5.8	56
PENGUIN	Anti-Ship Missile	11.5	73.1	47.8	57
PHOENIX	Air-Air Missile	394.4	325.5	-	58
RAM	Rolling Airframe Missile	59.8	96.2	74.1	59
SPARROW 2/	Air-Air Missile	57.0	-	-	60
STANDARD	Air Defense Missile	670.1	463.6	658.5	61
TOMAHAWK	Cruise Missile	752.6	628.4	863.4	62
TRIDENT II	Strategic Missile	2,450.3	1662.2	1,745.7	63
VLA	Vertical Launched ASROC	139.4	2.0	30.0	64
<u>Marine Corps</u>					
HAWK	Air Defense Missile	140.2	9.3	6.7	65
STINGER 5/	Air Defense Missile	141.1	-	-	66
TOW-2 1/-	Anti-Armor Missile	25.7	10.0	10.1	67

DEPARTMENT OF DEFENSE FY 1991 BUDGET

PROGRAM ACQUISITION COSTS

(\$ in Millions)

<u>TRACKED COMBAT VEHICLES</u>		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Page</u> <u>No.</u>
<u>Army</u>					
BFVS	Bradley Fighting Vehicle System	708.4	636.3	695.0	95
M-1 <u>1</u> /	Tank, Combat	1,547.2	1,330.9	838.0	96
<u>Marine Corps</u>					
M-1 <u>1</u> /	Tank, Combat	162.6	384.3	-	97

DEPARTMENT OF DEFENSE FY 1991 BUDGET

PROGRAM ACQUISITION COSTS

(\$ in Millions)

<u>OTHER PROCUREMENT PROGRAMS</u>		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY1991</u>	<u>Page No.</u>
<u>Army</u>					
SINCGARS	Single Channel Ground Airborne Radio System	248.9	113.5	312.7	98
ADDS	Army Data Distribution System	96.0	19.1	43.9	99
FMTV	Family of Medium Tactical Vehicles	24.8	18.1	63.3	100
9mm 5/ HMMWV 3/	Personal Defense Weapon High Mobility Multi- Purpose Vehicle	7.0	-	8.0	101
M109	Howitzer Cannon Replacement	152.5	217.5	252.4	102
M113	Armored Personnel Carrier	56.2	86.2	215.6	103
MSE	Mobile Subscriber Equipment	75.0	101.0	-	104
VRFWS	25mm Vehicle Rapid Fire Weapon System, M242 (BUSHMASTER)	1,029.5	978.8	27.7	105
PLS	Palletized Load System	29.7	18.7	27.5	106
		28.0	52.6	150.6	107
<u>Navy</u>					
9mm 5/ FLTSATCOM	Personal Defense Weapon Fleet Satellite Communications	2.1	5.7	6.1	108
MK-15	CIWS (PHALANX)	190.0	328.5	263.3	109
MK-48	ADCAP Torpedo	27.3	66.5	74.3	110
MK-50	Advanced Lightweight Torpedo	517.0	474.6	423.3	111
MK-75	76mm Gun Mount	339.3	337.7	377.8	112
---	ASW Targets	2.3	9.7	2.7	113
		14.9	43.4	31.4	114

DEPARTMENT OF DEFENSE FY 1991 BUDGET

PROGRAM ACQUISITION COSTS

(\$ in Millions)

OTHER PROCUREMENT PROGRAMS (Continued)

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Page No.</u>
<u>Marine Corps</u>					
ULCS	Unit Level Circuit Switch	79.3	49.1	34.9	115
TAOM	Tactical Air Operations				
	Module	101.2	61.3	79.6	116
9mm 5/	Personal Defense Weapon	3.2	-	-	117
<u>Air Force</u>					
9mm 5/	Personal Defense Weapon	1.9	-	-	118
DMSP	Defense Meteorological				
	Satellite Program	208.7	164.2	197.5	119
DSCS	Defense Satellite				
	Communications System	86.3	73.3	80.4	120
HMMWV 3/	5/4-Ton Truck	4.3	-	-	121
MARV	Mobile Armored				
	Recon Vehicle	20.6	.3	-	122
MLV	Medium Launch Vehicle	255.4	164.9	269.7	123
NAVSTAR	Global Positioning				
	System	120.8	80.9	250.6	124
OTH-B	Over-the-Horizon				
	Backscatter Radar	201.1	219.6	254.5	125
--	Space Boosters	801.9	680.8	472.1	126
--	Space Shuttle Operations	44.3	82.8	34.2	127
NWS	North Warning System	198.5	196.0	7.6	128
<u>Joint Programs</u>					
UAVs	Unmanned Aerial Vehicles	90.4	111.2	103.6	129

# DEPARTMENT OF DEFENSE FY 1991 BUDGET

## PROGRAM ACQUISITION COSTS

(\$ in Millions)

### PROGRAMS IN R&D ONLY

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Page No.</u>
<u>Army</u>				
LHX Army Helicopter	177.2	274.2	465.1	130
Non-Line of Sight Missile	142.4	122.1	99.1	131
<u>Navy</u>				
Advanced Air-to-Air Missile	29.6	70.4	84.2	132
<u>Air Force</u>				
Advanced Tactical Fighter	674.5	1,045.9	1,047.4	133
Aircraft Engine Component Improvement Program <u>2/</u>	132.9	111.6	135.5	134
Advanced Launch System	-	86.2	60.3	135
<u>Joint Programs</u>				
Strategic Defense Initiative	3,710.4	3,581.7	4,471.3	136
Air Defense Initiative	155.1	149.9	246.9	137
Long Range Conventional Stand-Off Weapon	33.4	18.8	55.4	138
National Aerospace Plane	228.4	192.5	158.0	139

### LEGEND FOR FOOTNOTES:

- 1/ Army and Marine Corps funding involved.
- 2/ Navy and Air Force funding involved.
- 3/ Army, Navy and Air Force funding involved.
- 4/ Army and Navy funding involved.
- 5/ All Services.



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AH-64 Attack Helicopter, Army

Description: The AH-64 is a twin engine helicopter designed and equipped for the tank killing role. Manned by a crew of 2, the AH-64 will have a speed of approximately 150 knots and a mission endurance of 1.8 hours. Its ordnance consists of up to 16 HELLFIRE laser guided antitank missiles, 1200 rounds of 30mm cannon and 76 2.75-inch rockets. The crew will be able to navigate and acquire targets day or night and in adverse weather using TV and infrared sensors. McDonnell Douglas Helicopter Company, Mesa, AZ is the prime contractor. General Electric, Lynn, MA builds the engines.

Mission: The AH-64 will be integrated with maneuver and fire plans of the combined arms team and has the primary mission of killing tanks and other armored vehicles. The AH-64 will complement the currently fielded AH-1S.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(72)	926.3	(132)	1,469.5	(-)	104.2
Initial Spares		76.6		66.0		-
		_____		_____		_____
Subtotal		1,002.9		1,535.5		104.2
RDT&E		51.7		66.5		60.5
Military Construction		23.8		-		-
		_____		_____		_____
TOTAL		1,078.4		1,602.0		164.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: CH-47 Modernization

Description: This modernization program provides for the development, testing and remanufacture of CH-47 helicopters. They will have new transmissions, rotor blades, hydraulics, electrical systems, auxiliary power units, flight control systems and two additional cargo hooks. Integration of these changes significantly improves safety, survivability, productivity, reliability, and maintainability. Additionally, they will extend the life of the CH-47 fleet beyond the year 2000 at a much reduced cost compared to a new helicopter development program. The prime contractor is Boeing Vertol of Philadelphia, PA.

Mission: Provides tactical transport of artillery, engineering equipment, bulk cargo and personnel. It also provides a capability for recovery of downed aircraft and for medical evacuation of casualties.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	247.4	(-)	273.7	(-)	294.2
Initial Spares		36.0		2.1		-
		_____		_____		_____
Subtotal		283.4		275.8		294.2
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		283.4		275.8		294.2

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Army Helicopter Improvement Program  
(OH-58D)

Description: A single engine, single 4-bladed main rotor, observation helicopter. Modified OH-58A with television, Thermal Imaging System (TIS), and laser rangefinder-designator incorporated into a Mast-Mounted Sight (MMS). Commencing in FY 1989 the OH-58D will have air-to-air STINGER missiles. Designed to operate autonomously with the field artillery helicopters providing command and control, target acquisition and target designation under day, night, and adverse weather conditions. Provides adjustment of conventional artillery, as well as spotting and laser designation for precision guided munitions. Beginning in FY 1991 the fleet will be retrofitted with Air-to-Ground weapons. The prime contractor is Bell Helicopter of Fort Worth, TX and the engines are produced by Detroit Diesel Allison of Indianapolis, IN.

Mission: Provide commanders with a survivable, real-time combat information, command and control reconnaissance, security, aerial observation, and target acquisition-designation system to operate with attack helicopter, air cavalry, and field artillery units during day, night, and other reduced visibility conditions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(36)	202.9	(36)	192.3	(-)	48.0
Initial Spares		28.0		-		-
		-----		-----		-----
Subtotal		230.9		192.3		48.0
RDT&E		-		-		25.8
Military Construction		-		-		-
		-----		-----		-----
TOTAL		230.9		192.3		73.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: RC-12D GUARDRAIL Aircraft

Description: GUARDRAIL is a combined airborne/ground communications intelligence system capable of intercepting and locating communication emitters. GUARDRAIL consists of mission configured RC-12D twin turbo-prop aircraft and a mobile ground mission processing facility. The prime contractor for the airframe is Beech Aircraft, Wichita, KS and avionics is produced by ESL, Inc. of Sunnyvale, CA.

Mission: GUARDRAIL will provide the ground commander with timely and important data on enemy plans and locations which will enable him to concentrate his combat resources at the critical time and place.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6)	62.0	(5)	52.0	(5)	87.4
Initial Spares		11.5		22.0		-
		_____		_____		_____
Subtotal		73.5		74.0		87.4
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		73.5		74.0		87.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: UH-60A Utility Helicopter (BLACK HAWK)

Description: The BLACK HAWK is a twin engine, single-rotor helicopter that is designed to carry a crew of three and a combat equipped squad of eleven or an equal cargo load. It is also capable of carrying external loads of up to 8,000 lbs. The prime contractor is Sikorsky Aircraft of Stratford, CT.

Mission: The BLACK HAWK provides a highly maneuverable, air transportable, troop carrying helicopter for all intensities of conflicts, without regard to geographical location or environmental conditions. It moves troops, equipment and supplies into combat and performs aeromedical evacuation and multiple functions in support of the Army's air mobility doctrine for employment of land forces.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(72)	421.2	(72)	381.6	(72)	469.3
Initial Spares		48.9		49.1		-
		_____		_____		_____
Subtotal		470.1		430.7		469.3
RDT&E		21.9		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		492.0		430.7		469.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-212 Reconnaissance Aircraft (GRISLY HUNTER)

Description: The Grisly Hunter program is developing and fielding an airborne sensor platform and associated support equipment for reconnaissance and surveillance. The purpose of Grisly Hunter is to provide the capability to detect and identify targets in a Low Intensity Conflict environment. This function will be implemented in a special purpose aircraft instrumented with sensors which are fully integrated into a sensor control and data analysis system. The aircraft operate and detect/identify targets of interest in a completely autonomous mode. The contractor will be competitively selected in FY 1990.

Mission: Day/Night surveillance providing responsive on-call imagery intelligence.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	9.8	(1)	10.4
Initial Spares		-		-		-
		_____		_____		_____
Subtotal		-		9.8		10.4
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		-		9.8		10.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-23 SHERPA

Description: The C-23 SHERPA is a twin engine light transport capable of all weather, day-night flight. The aircraft has rear cargo ramp, modern avionics, and can carry a maximum of 30 passengers. The C-23 is manufactured by Short Brothers of Northern Ireland.

Mission: The C-23 will replace the C-7A aircraft now supporting ARNG aviation maintenance repair depots, as well as other support assignments.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(6)	42.0	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		42.0		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		*42.0		-

\*Appropriated to National Guard and Reserve Equipment, Defense.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AH-1W SEA COBRA Helicopter

Description: The AH-1W is a tandem seat attack helicopter whose armament includes the SIDEWINDER, TOW and HELLFIRE missiles, a 20mm turret gun and a wide variety of forward firing and droppable external munitions. The prime contractor is Bell Helicopter of Fort Worth, TX. Engines are produced by General Electric of Lynn, MA.

Mission: The AH-1W is a helicopter gunship whose mission is the escort and protection of troop assault helicopters, fire suppression at landing zones during the assault phase and fire support during ground escort operations. The TOW and HELLFIRE missiles also provide an anti-armor capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	53.8	(6)	*58.6	(-)	-
Initial Spares		1.1		.5		-
		<hr/>		<hr/>		<hr/>
Subtotal		54.9		59.1		-
RDT&E		11.5		17.7		14.6
Military Construction		-		-		-
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TOTAL		66.4		76.8		14.6

\*Appropriated to National Guard & Reserve Equipment, Defense.



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AV-8B (V/STOL) HARRIER

Description: Single seat, single-engine, transonic jet aircraft capable of Vertical/Short Takeoff and Landing (V/STOL). This V/STOL capability, combined with high performance and combat effectiveness, provides the Marine forces with a quick reaction weapon system. Prime contractors are McDonnell Douglas Corporation of St. Louis, MO on the airframe, Rolls Royce, Ltd. of Bristol, England on the engine, and British Aerospace of Kingston, England on the aft fuselage.

Mission: Close air support for Marine Corps forces in amphibious operations, and direct support of ground forces from austere forward bases.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(24)	511.9	(24)	449.1	(24)	457.3
Initial Spares		61.4		108.7		77.5
		<hr/>		<hr/>		<hr/>
Subtotal		573.3		557.8		534.8
RDT&E		37.0		27.2		30.7
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		610.3		585.0		565.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: CH/MH-53E SUPER STALLION

Description: A three-engine, shipboard-compatible, Navy and Marine Corps heavy-lift helicopter. Prime contractors are United Technologies Corporation; Sikorsky Division of Stratford, CT for the airframe and General Electric of Lynn, MA for the engine.

Mission: Carry heavy cargo/troops in Marine Corps and Navy missions, including Vertical On-Board Delivery (VOD) for fleet replenishment, Airborne Mine Countermeasures (AMCM) operations, and recovery of downed or damaged aircraft and equipment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(14)	227.4	(10)	205.6	(23)	434.8
Initial Spares		8.1		24.3		24.7
		<hr/>		<hr/>		<hr/>
Subtotal		235.5		229.9		459.5
RDT&E		8.4		7.8		19.9
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		243.9		237.7		479.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: E-6A HERMES

Description: An in-production, electromagnetic pulse (EMP) hardened, wide-body aircraft to replace the EC-130Q (TACAMO) aircraft. Prime contractor is Boeing Company, Seattle, WA.

Mission: To provide a manned airborne relay platform as part of the Minimum Essential Emergency Communications Network (MEECN) and to provide survivable communications connectivity between the National Command Authority (NCA) and Fleet Ballistic Missile (FBM) Submarines.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(7)	332.2	(-)	-	(-)	-
Initial Spares		29.1		15.5		3.9
		<hr/>		<hr/>		<hr/>
Subtotal		361.3		15.5		3.9
RDT&E		3.2		-		-
Military Construction		38.1		21.5		-
		<hr/>		<hr/>		<hr/>
TOTAL		402.6		37.0		3.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: E-2C HAWKEYE

Description: All weather, carrier-based airborne early warning aircraft. Prime contractors are Grumman Aerospace Corporation of Bethpage, Long Island, NY for the airframe and General Motors Corporation, Allison Division, of Indianapolis, IN for the engine.

Mission: Airborne early warning, strike and control, radar surveillance, search and rescue assistance, communication relay and automatic tactical data exchange.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6)	345.3	(4)	291.1	(6)	389.0
Initial Spares		30.3		50.3		22.0
Subtotal		375.6		341.4		411.0
RDT&E		22.6		37.8		37.5
Military Construction		-		-		-
TOTAL		398.2		379.2		448.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: EA-6B/Remanufacture PROWLER

Description: Four seater, twin-engine derivation of A-6 attack aircraft which is equipped with a computer-controlled electronic surveillance and control system and high power jamming transmitters. Beginning in FY 1991, existing EA-6B aircraft will be remanufactured into the more capable Advanced Capability (ADVCAP) configuration. Prime contractors are Grumman Aerospace Corporation, Bethpage, Long Island, NY on the airframe and Pratt and Whitney of East Hartford, CT on the engine.

Mission: All-weather Electronic Countermeasures (ECM) in support of Navy and Marine Corps strike forces.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(12)	544.8	(-)	129.6	(3)	350.0
Initial Spares		10.6		18.3		22.4
		<hr/>		<hr/>		<hr/>
Subtotal		555.4		147.9		372.4
RDT&E		-		9.7		1.7
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		555.4		157.6		374.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: F-14D/Remanufacture TOMCAT

Description: Carrier-based, two-seater, twin-engine, high-performance, fleet air defense fighter capable of air-to-air combat and air-to-ground attack. In FY 1990, a combination of new construction and remanufactured F-14D aircraft will be procured. Starting in FY 1991, all aircraft procured will be of the remanufacture variant. The remanufacture program consists of the conversion of existing F-14A/A+ aircraft into the more capable F-14D configuration. The remanufacture portion of the program will be awarded competitively. Prime contractors for new construction are Grumman Aerospace Corporation of Bethpage, Long Island, NY for the airframe and General Electric of Lynn, MA for the engines.

Mission: Air superiority fighter, fleet air defense interceptor and limited air-to-ground attack.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(12)	902.9	(24)	1,408.7	(12)	906.2
Initial Spares		48.4		108.7		90.7
Subtotal		951.3		1,517.4		996.9
RDT&E		152.6		117.8		121.4
Military Construction		-		-		-
TOTAL		1,103.9		1,635.2		1,118.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: F/A-18 HORNET

Description: Twin-engine, high-performance, multi-mission, tactical aircraft, for deployment in Navy and Marine Corps fighter and attack squadrons, replacing the F-4 and A-7 aircraft. Prime contractors are McDonnell Douglas Corporation of St. Louis, MO for the airframe and General Electric of Lynn, MA for the engines. Northrop Corporation, Hawthorne, CA is a major subcontractor.

Mission: The primary roles for the F/A-18 include fighter escort and fleet air defense. The aircraft also will be used as a strike fighter and to conduct interdiction and close air support missions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(84)	2,444.3	(66)	1,916.8	(66)	2,045.0
Initial Spares		72.1		147.5		78.3
Subtotal		2,516.4		2,064.3		2,123.3
RDT&E		-		-		-
Military Construction		-		-		-
TOTAL		2,516.4		2,064.3		2,123.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: KC-130T

Description: The KC-130T is a basic C-130 aircraft updated for aerial refueling for fighter and attack aircraft and helicopters. It is also capable of conventional or aerial delivery of personnel or cargo. The prime contractor is Lockheed-Georgia Corporation of Marietta, GA

Mission: The KC-130T provides for the refueling capability to support rapid cross-ocean Marine Corps deployments.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2)	*45.0	(2)	*50.0	(1)	*25.0
Initial Spares		-		-		-
Subtotal		*45.0		50.0		25.0
RDT&E		-		-		-
Military Construction		-		-		-
TOTAL		45.0		50.0		25.0

\* Funded in National Guard and Reserve Equipment, Defense.



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: T-45 GOSHAWK Training System (T-45TS)

Description: The T-45 Training System includes the T-45TS GOSHAWK derivative of the British Aerospace HAWK aircraft and will integrate aircraft, simulators, academics, and a training management system into a cost effective replacement system for the current Navy Training Command intermediate and advanced phase aircraft. The contractor is Douglas Aircraft Company, Long Beach, CA.

Mission: The T-45 Training System will provide for the required training of naval aviators through the year 2010.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(24)	414.0	(-)	96.3	(12)	305.9
Initial Spares		14.5		29.6		24.0
Subtotal		<u>428.5</u>		<u>125.9</u>		<u>329.9</u>
RDT&E		91.2		22.4		14.9
Military Construction		-		11.9		-
TOTAL		<u>519.7</u>		<u>160.2</u>		<u>344.8</u>

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HH-60H BLACKHAWK, Navy

Description: The Navy HH-60H is a combat and search and rescue helicopter. The aircraft has a maximum gross weight of about 20,000 pounds, utilizes a crew of three and has seating for up to 11 troops. Sikorsky Aircraft Corporation of Stratford, CT is the airframe contractor and General Electric Company of Lynn, MA is the engine contractor.

Mission: The HH-60's primary mission is combat and search and rescue with secondary missions of Helicopter Light Attack (HLA) and Naval Special Warfare (NSW).

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	15.4	(-)	-	(-)	-
Initial Spares		8.4		9.0		-
		<hr/>		<hr/>		<hr/>
Subtotal		23.8		9.0		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		23.8		9.0		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Vertical Lift  
Aircraft (V-22) Osprey

Description: The V-22 Osprey is a tilt-rotor, vertical take-off and landing aircraft. The V-22 is capable of flying over 2,000 nautical miles without refueling, giving the Military Departments the advantage of a VSTOL aircraft that can rapidly self-deploy throughout the world. The contractors are Bell Helicopters, Fort Worth, TX and Boeing Vertol, Philadelphia, PA (Air Vehicles); and Allison Gas Turbine Division (Engines), Indianapolis, IN.

Mission: Airborne Assault Vertical Lift (Marine Corps); Combat Search and Rescue (Navy and Air Force); and Special Operations.

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement			
Item	(-) 333.9	-	-
Initial Spares	-	-	-
	_____	_____	_____
Subtotal	333.9	-	-
RDT&E	301.2	255.0	-
Military Construction	-	-	-
	_____	_____	_____
TOTAL	635.1	255.0	-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: P-7A LRAACA (LONG RANGE ASW AIRCRAFT)

Description: The P-7A LRAACA is a land based, four-engine, anti-submarine warfare patrol plane. It is a derivative of the P-3 design. The airframe prime contractor is Lockheed California, Burbank CA. The engine contractor is General Electric, Lynn, MA.

Mission: Anti-submarine warfare, ocean surveillance and mining, under day, night and all-weather conditions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	20.5
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		20.5
RDT&E		64.4		198.9		234.9
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		64.4		198.9		255.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SH-60B SEAHAWK LAMPS MK III (Light Airborne Multi-Purpose System)

Description: LAMPS MK III is a computer integrated ship helicopter system that increases the effectiveness of surface combatants. The air vehicle is the SH-60B helicopter which provides a remote platform for deployment of sonobouys and torpedoes, processing of sensor information and an elevated platform for radar and Electronic Warfare Support Measures (ESM). International Business Machines (IBM) of Owego, NY is the system contractor, Sikorsky Aircraft Corporation of Stratford, CT the air vehicle contractor, and General Electric Company of Lynn, MA the engine contractor.

Mission: The primary mission of LAMPS MK III is anti-submarine warfare. Secondary missions include ship surveillance and targeting, search and rescue, medical evacuation and vertical replenishment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6)	109.3	(6)	187.0	(6)	144.4
Initial Spares		9.2		18.8		23.8
		<hr/>		<hr/>		<hr/>
Subtotal		118.5		205.8		168.2
RDT&E		1.9		1.1		21.6
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		120.4		206.9		189.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SH-60F CV ASW Helicopter

Description: The SH-60F CV ASW helicopter is a derivation of the SH-60B (Seahawk). It provides quick reaction inner-zone protection using an improved tethered sonar. This helicopter replaces the aging SH-3H. Sikorsky Aircraft Corporation of Stratford, CT is the airframe contractor and General Electric Company of Lynn, MA is the engine contractor.

Mission: The carrier ASW helicopter weapon system will provide ASW protection in the inner-zone of the aircraft carrier battle group (CVBG). Other primary missions which the carrier ASW helicopter will perform are mobility and command, control, and communications. Secondary missions are logistics, fleet support operations (including plane guard, MEDEVAC, and search and rescue), non-combat operations, and surveillance.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(18)	349.5	(-)	79.1	(18)	272.1
Initial Spares		23.8		28.1		15.9
		_____		_____		_____
Subtotal		373.3		107.2		288.0
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		373.3		107.2		288.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: T-44A TRAINER AIRCRAFT

Description: The T-44A is a commercial FAA certified, twin engine aircraft. The prime contractor for the airframe is Beech Aircraft, Wichita, KS. The engine prime contractor is Pratt & Whitney, Montreal, Canada.

Mission: Multi-engine pilot training for land based patrol and transport operations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(5)	12.0	(-)	-
Initial Spares		-		.4		.1
		<hr/>		<hr/>		<hr/>
Subtotal		-		12.4		.1
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		12.4		.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-20 Jet Transport

Description: The C-20 is a dual engine, long-range jet transport aircraft. The aircraft is capable of carrying passengers and cargo in varying combinations. Civilian designation of the C-20 is the Gulfstream III or Gulfstream IV. The prime contractor is Gulfstream Aerospace Corporation of Savannah, GA.

Mission: The C-20 provides quick response, intercontinental air logistics capability for Fleet movements and deployments.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	*24.8	(1)	*25.0
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		24.8		25.0

\* Funded in the National Guard and Reserve Equipment, Defense appropriation.



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AC-130U Gunship

Description: The AC-130U will have enhanced capability, improved reliability, and maintainability, more survivability than the existing AC-130 aircraft and be more deployable than the older AC-130A gunships. The new aircraft subsystems will include precision navigation, target acquisition radar, fire control computers, infrared countermeasures, aerial refueling, covert lighting, trainable weapons, and secure communications systems. These subsystems will provide the gunship the capability to strike targets with surgical accuracy, to loiter safely in the target area for extended time periods, and to perform these tasks in night and adverse weather conditions. The airframe contractor is Lockheed and the avionics integration contractor is Rockwell International.

Mission: The mission of the AC-130 gunship is to provide fire support for unconventional and conventional forces. The gunship must rapidly and effectively respond to a wide variety of joint/combined operations, plans, contingencies, including unconventional warfare, close air support, interdiction and armed reconnaissance.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6)	315.4	(5)	235.1	(-)	-
Initial Spares		-		4.4		41.2
		—		—		—
Subtotal		315.4		239.5		41.2
RDT&E		85.4		22.4		13.9
Military Construction		-		.7		-
		—		—		—
TOTAL		400.8		262.6		*55.1

\*Funded in Defense Agency accounts.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-17

Description: The C-17 program addresses the requirement stated in the congressionally mandated Mobility Study which identified the need to increase the strategic airlift capability by approximately 20 million ton miles per day. The C-17 will be capable of performing the entire spectrum of airlift missions and is specifically designed to effectively and efficiently operate in both the intertheater and intratheater environments. The major contractors are Douglas Aircraft Company, Long Beach, CA (Airframe) and Pratt-Whitney, East Hartford, CT (Engine).

Mission: The C-17 will provide outsize intratheater airland/airdrop capability not available in the current airlift force and replace C-130As and C-141s as they begin to leave the airlift force in the 1990's.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(4)	995.6	(4)	1,207.5	(6)	1,908.8
Initial Spares		109.1		221.9		237.3
		<hr/>		<hr/>		<hr/>
Subtotal		1,104.7		1,429.4		2,146.1
RDT&E		905.5		885.2		541.1
Military Construction		4.2		4.7		29.6
		<hr/>		<hr/>		<hr/>
TOTAL		2,014.4		2,319.3		2,716.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

SYSTEM NOMENCLATURE: C-130H (Guard and Reserves)

Description: The C-130H is a medium size tactical transport aircraft which has a number of missions including deployment and redeployment of troops and/or supplies within and between command areas in a theater of operation, aeromedical evacuation, air logistic support and augmentation of strategic airlift forces. These aircraft are being procured for Army/Navy/Air Force Reserve and Guard Units. The major contractors are Lockheed for the airframe and Allison for the engine.

Mission: The mission of the C-130H is the immediate and responsive air movement and delivery of combat troops and supplies directly into objective areas through extraction, airdrop, or other delivery techniques; and the air logistic support of all theater forces, including those engaged in combat operations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	406.9	(14)	308.2	(5)	120.0
Initial Spares		<u>-</u>		<u>-</u>		<u>-</u>
Subtotal		406.9		308.2		120.0
RDT&E		-		-		-
Military Construction		-		-		-
TOTAL		<u>406.9</u>		<u>308.2</u>		<u>120.0</u>

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Civil Air Patrol (CAP) Aircraft

Description: The Civil Air Patrol aircraft will be new or used propellor-driven commercial aircraft to be provided to the Civil Air Patrol by the Air Force. When originally established, the Civil Air Patrol was to receive its operating equipment from excess inventory in the Department of Defense. In recent years, the inventory of propeller-driven aircraft in the Department of Defense has been decreasing, allowing for fewer aircraft for modernization of the CAP. The Congress, in recognition of this fact, has permitted the Air Force to procure used or new aircraft specifically for transfer to the CAP.

Mission: The CAP aircraft will be utilized by the CAP to perform its mission of emergency search and rescue services and to provide aeronautical education for its members and the public.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(38)	1.8	(38)	2.5	(38)	1.9
Initial Spares		-		-		-
		_____		_____		_____
Subtotal		1.8		2.5		1.9
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		1.8		2.5		1.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: F-15 EAGLE Multimission Fighter

Description: The F-15E is a twin-engine, two man crew, fixed swept wing aircraft. The F-15E maintains the basic F-15 air superiority characteristics while adding air-to-surface weapons capability. Prime contractors are McDonnell Douglas of St. Louis, MO for the airframe, and Pratt & Whitney of East Hartford, CT for the engine.

Mission: The F-15E performs both air superiority and all-weather, deep penetration, and night/under-the-weather attack with large air-to-surface weapons payloads.

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
		<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement				
Item	(36)	1,377.8	(36) 1,337.1	(36) 1,699.8
Initial Spares		92.2	106.3	51.0
Subtotal		<hr/> 1,470.0	<hr/> 1,443.4	<hr/> 1,750.8
RDT&E		84.8	86.4	89.1
Military Construction		<hr/> -	<hr/> 5.1	<hr/> 4.8
TOTAL		1,554.8	1,534.9	1,844.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: F-16 Multimission Fighter (FALCON)

Description: The F-16 is a single seat, fixed wing, high performance fighter aircraft powered by a single engine. The advanced technology features include a blended wing body, reduced static margin and fly-by-wire flight control system. Prime contractors are General Dynamics, Fort Worth, TX for the airframe and Pratt and Whitney, East Hartford, CT and General Electric, Evendale, OH for the engine.

Mission: The F-16 is being configured as a lightweight high performance, multipurpose fighter capable of performing credibly over a broad spectrum of tactical air warfare tasks at affordable cost.

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
		<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement				
Item	(180)	2877.7	(150) 2,984.2	(150) 2,794.5
Initial Spares		290.3	211.0	108.1
		_____	_____	_____
Subtotal		3,168.0	3,195.2	2,902.6
RDT&E		23.1	25.0	70.1
Military Construction		8.2	-	-
		_____	_____	_____
Total		3,199.3	3,220.2	2,972.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Night Precision Attack (LANTIRN)

Description: The Low Altitude Navigation and Infrared System for Night (LANTIRN) pod is an air-to-ground electro-optical fire control system, emphasizing FLIR and computer processing, that will allow a single-seat fighter pilot to fly at minimal altitudes while critical battlefield targets are acquired, recognized and weapons launched. The prime contractor is the Martin Marietta Corporation, Orlando, FL.

Mission: Enhance capability of tactical aircraft to perform close air support and battlefield interdiction missions during night and adverse weather conditions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	689.1	(-)	241.1	(-)	186.8
Initial Spares		11.7		9.0		5.7
		-----		-----		-----
Subtotal		700.8		250.1		192.5
RDT&E		6.4		11.5		7.8
Military Construction		1.8		.2		-
		-----		-----		-----
TOTAL		709.0		261.8		200.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: KC-135 Re-engining/Modernization

Description: The total modernization effort incorporates new engines, nacelles, and pylons and some 34 total subsystem modifications. Through FY 1991, 395 aircraft will be modified. The French Government will also participate in this program, reengining 11 aircraft. The KC-135R represents the most cost-effective addition of tanker capability by adding one-half of a KC-135A equivalent for each KC-135 reengined by this modification. The airframe prime contractor is the Boeing Military Aircraft Company, Wichita, KS, and the engine contractor is General Electric, Evendale, OH.

Mission: The modifications will enable the KC-135 to take off with maximum fuel loads, in shorter distances, and nearly eliminate the adverse noise impact. Operational payoff will be to increase fuel off-load by 30 to 200 percent. This modernization effort helps to alleviate the growing tanker shortfall and will enable the KC-135 to operate safely and efficiently well into the 21st century.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(47)	743.6	(36)	572.4	(24)	446.6
Initial Spares		1.3		-		9.5
		_____		_____		_____
Subtotal		744.9		572.4		456.1
RDT&E		3.1		2.2		3.6
Military Construction		2.5		-		-
		_____		_____		_____
TOTAL		750.5		574.6		459.7



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Tanker-Transport Training System

Description: The Tanker-Transport Training System (TTTS) is required to implement Specialized Undergraduate Pilot Training (SUPT) in the Air Training Command. The TTTS will be a competitive procurement of a commercially available jet aircraft that will accommodate an instructor and two students. Under SUPT students will enter the Tanker-Transport (TT) track or the Bomber-Fighter (BF) track after 85 hours in the T-37 aircraft. The TT syllabus will include training in high and low altitude instrument approaches, crew coordination, asymmetric thrust situations, low-level navigation, airdrop fundamentals, airborne rendezvous, and cell formation. This program also provides for procurement of Operational Flight Trainers (OFT). The contractor will be competitively selected.

Mission: This training concept is aimed at providing a higher quality graduate with more flying hours and skills specifically tailored to the needs of gaining commands. Additionally, it will reduce training costs and displace approximately 200 T-38s.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1)	9.5	(14)	144.4	(28)	185.2
Initial Spares		-		-		7.9
		<hr/>		<hr/>		<hr/>
Subtotal		9.5		144.4		193.1
RDT&E		4.1		3.6		2.4
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		13.6		148.0		195.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: E-8A

Description: Joint Surveillance Target Attack Radar System (Joint STARS) is an E-8A aircraft modified to operate a target attack radar system to detect and track both moving and fixed enemy ground targets. Gruman Corporation, Melbourne, FL is the prime contractor.

Mission: Joint STARS will provide information to delay/disrupt/destroy mobile targets in the enemy second echelon.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RDT&E		232.1		88.1		232.5
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		232.1		88.1		232.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MC-130H Combat TALON

Description: Medium size tactical transport powered by four T-56-A-15 turboprop engines. Ferry range of approximately 4,200 NM; service ceiling of 35,000 feet; and cruise speed of 290 knots; payload of 30,000 pounds. Aircraft features include an integral ramp and cargo door, crew and cargo compartment pressurization, ground and in-flight air conditioning, thermal de-icing system, a single-point refueling, and auto pilot. Additional features of this specially modified C-130 are precision navigation, terrain following radar, electronic counter measures (ECM) subsystems, in-flight refueling, and capability to refuel helicopters. The airframe is produced by Lockheed, Marietta GA; The engine manufacturer is Detroit Allison, Indianapolis, IN.

Mission: The MC-130H Combat TALON II is a special operations aircraft. It is used to infiltrate, resupply, and extract forces from hostile territory.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(4)	330.8	(2)	169.0	(-)	*85.8
Initial Spares		18.2		32.0		24.0
Subtotal		349.0		201.0		109.8
RDT&E		18.2		12.1		29.4
Military Construction		10.2		13.9		-
TOTAL		377.4		227.0		139.2

\*The MC-130H is budgeted in the Special Operations Forces appropriation in FY 1991 and subsequent fiscal years.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MH-60G PAVE HAWK HELICOPTER

Description: The MH-60G is a substantially upgraded UH-60A designed to meet a variety of Air Force mission requirements. To upgrade combat mission capability, flexibility, and survivability, the MH-60G will receive extended range, precision low-level tactical navigation, and improved communication and weapon systems. All current USAF H-60s are being upgraded to the MH-60G Pave Hawk configuration through a series of separate but coordinated modification programs involving contractor and government depot installations. The MH-60G is capable of a wide range of mission tasking in day and night Visual Meteorological Conditions (VMC) including marginal weather operations. The basic UH-60A airframe is manufactured by Sikorsky Helicopter, Stratford, CT, and the engine is produced by General Electric, Lynn, MA.

Mission: The MH-60G is a multimission helicopter designed for a variety of Air Force combat and peacetime operations. The principal wartime missions of the MH-60G are combat rescue and support for Special Operations Forces (SOF). In peacetime the MH-60G can be used for search and rescue, humanitarian assistance, civic action, foreign internal defense, counter terrorism, and low intensity conflict operations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(9)	75.4	(4)	48.6	(4)	36.9
Initial Spares		3.1		18.3		6.6
Subtotal		78.5		66.9		43.5
RDT&E		-		-		-
Military Construction		-		-		-
TOTAL		78.5		66.9		43.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-27A SOUTHCOM Mission Support

Description: The C-27A is a new, off-the-shelf Short Take-Off and Landing (STOL) aircraft. The turbine-powered C-27A will be capable of clearing a 50-foot obstacle with a take-off distance of 1,800 feet and landing distance of 2,000 feet. The prime contractor will be competitively selected.

Mission: The C-27A will meet the requirement for rapid response intratheater airlift of troops and cargo to remote airfields with short, unpaved landing surfaces in support of low intensity conflict.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(5)	73.3	(5)	79.5
Initial Spares		-		10.3		11.1
		<hr/>		<hr/>		<hr/>
Subtotal		-		83.6		90.6
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		83.6		90.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: B-2 Advanced Technology Bomber

Description: The B-2 is an intercontinental bomber that employs low observables, or stealth, technology to achieve its mission. The bomber is an all-wing, two-place aircraft with twin weapons bays. Four General Electric F-118-GE100 aircraft engines power the B-2. The F-118 engine is a derivative of the F-100 engine, currently used in the F-16 fighter and is in the 19000 lb thrust class. Northrop Corporation is the prime contractor for the B-2; the engines are manufactured by General Electric.

Mission: The B-2 is designed to deliver both nuclear and conventional weapons against fixed and relocatable targets with less tanker support than its predecessors required.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(3)	2,796.4	(2)	2,070.2	(5)	3,206.0
Initial Spares		240.5		239.2		622.0
		<hr/>		<hr/>		<hr/>
Subtotal		3,036.9		2,309.4		3,828.0
RDT&E		2,176.5		1,881.4		1,566.7
Military Construction		94.2		111.3		141.2
		<hr/>		<hr/>		<hr/>
TOTAL		5,307.6		4,302.1		5,535.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HC-130 Tanker Rescue Aircraft

Description: The HC-130 is a tanker-rescue version of the C-130 production aircraft. The prime contractor is Lockheed Corporation, Marietta, GA.

Mission: Procured for Air National Guard (ANG) units. The HC-130 will support the continuous rescue alert commitment to the Alaskan Air Command and the Air Force in the harsh Alaskan environment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	42.6	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		42.6		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		42.6		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-20 Jet Transport

Description: The C-20 is a commercial derivative of the Gulfstream III/IV series aircraft. The aircraft contains communications and navigation upgrades to meet Air Force requirements. The prime contractors for the C-20 aircraft are Gulfstream Aerospace Corp, GA for the air vehicle and E-Systems, Greenville, Texas for the communications system upgrade.

Mission: Procured for Guard and Reserve units, the C-20 will be used to support National Guard Bureau (NGB), HQ MAC and USAF travel requirements. It will also provide the NGB with needed disaster response as well as extensive support of US drug interdiction efforts.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(2)	49.2	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		49.2		-
RDT&E		-		-		-
Military Construction		-		-		-
Total		<hr/> -		<hr/> 49.2		<hr/> -



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: C-26

Description: The C-26 is a twin turboprop light commuter transport aircraft capable of all weather, day-night flight.

Mission: Its mission is to provide operational and contingency support airlift to include repositioning, medivac, and resupply of spare parts and medical supplies. It will replace the C-131 that currently performs this mission.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(9)	36.0	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		36.0		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		*36.0		-

\*Appropriated to National Guard and Reserve Equipment, Defense.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Army Tactical Missile System (ATACMS)

Description: ATACMS is an improved conventional ballistic missile system designed to attack targets of importance to the corps at ranges beyond the capabilities of cannons and rockets. This missile will be transported and launched from the Multiple Launch Rocket System (MLRS) launcher. The prime contractor is Vought Corporation, Dallas, TX.

Mission: Destroy, neutralize, disrupt, or delay enemy second echelon forces at ranges beyond the capability of cannons and rockets. This requirement includes the attack of surface-to-surface transporter erector launchers as part of the anti-tactical missile mission.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(66)	70.7	(152)	93.5	(377)	187.2
Initial Spares		-		-		-
Subtotal		70.7		93.5		187.2
RDT&E		73.6		41.0		-
Military Construction		-		-		5.2
TOTAL		144.3		134.5		192.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: CHAPARRAL Missile System, Army

Description: CHAPARRAL is a self-propelled, air transportable short range air defense (SHORAD) missile system. It consists of a tracked carrier, launch station and missiles. The missile, derived from the Navy Sidewinder missile, is lightweight, supersonic, fire-and-forget with newly developed Rosette Scan Seeker (RSS). CHAPARRAL was first fielded in 1969 and will remain in the active inventory through the 1990s in support of the Active Army and National Guard. The contractors are Ford Aerospace & Communications, Newport Beach, CA and Hughes Aircraft of Tucson, AZ.

Mission: Provides short-range air defense for Infantry, Mechanized Infantry and Armored Divisions, critical Corps and Theater rear area assets, including air bases.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(368)	56.7	(422)	25.4	(-)	-
Initial Spares		4.2		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		60.9		25.4		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		60.9		25.4		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Laser HELLFIRE Missile System, Army

Description: HELLFIRE is an air-to-ground, anti-armor missile system designed to defeat individual hardpoint targets. It utilizes semi-active laser terminal homing guidance and is designed to accept other guidance packages. The missile is built by Rockwell International in Duluth, GA and Martin Marietta in Orlando, FL.

Mission: HELLFIRE will be employed from AH-64 and specially configured UH-60 helicopters against heavily armored vehicles at longer ranges and with greater lethality than heliborne missiles currently in the inventory.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6,000)	204.6	(2,304)	98.9	(3,002)	123.3
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		204.6		98.9		123.3
RDT&E		14.9		28.6		30.5
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		219.5		127.5		153.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Line of Sight-Forward-Heavy (LOS-F-H)

Description: The LOS-F-H Air Defense System is a non-development item (NDI) that will be fielded with Army heavy divisions to engage helicopters and fixed wing aircraft. The weapon must have maneuverability and survivability against low flying high performance aircraft and helicopters flying in a countermeasures environment and will use target information provided by its own sensor as well as from the Forward Area Air Defense Command and Control (FAADS C2) System. The prime contractor is Martin Marietta in Orlando, FL.

Mission: To provide short range air defense for Mechanized Infantry and Armored Divisions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(60)	109.3	(110)	198.9	(220)	271.8
Initial Spares		<u>-</u>		<u>10.0</u>		<u>-</u>
Subtotal		109.3		208.9		271.8
RDT&E		48.5		54.8		-
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		157.8		263.7		271.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Multiple Launch Rocket System (MLRS), Army

Description: The MLRS is a 227mm diameter multiple-launch rocket system (MLRS) with tracked, self-propelled, launcher loader, disposable pods, and fire control equipment. Manufacturer of the rocket is Vought Corporation, Dallas, TX. The self-propelled launcher loader is manufactured by FMC, San Jose, CA.

Mission: To neutralize or suppress enemy field artillery and air defense systems and supplement cannon artillery.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(48,000)	430.7	(48,000)	496.1	(24,000)	373.5
Initial Spares		25.0		21.4		-
Subtotal		455.7		517.5		373.5
RDT&E		-		-		-
Military Construction		8.0		-		15.5
TOTAL		463.7		517.5		389.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: PATRIOT Air Defense Missile System, Army

Description: PATRIOT is a high and medium-altitude, field Army air defense system. The missile is designed under the certified round concept, requiring no field maintenance and employs a unique guidance concept called track-via-missile (TVM) which provides greatly increased accuracy. The prime contractor is Raytheon Corporation of West Andover, MA.

Mission: Provides the Army with effective air defense against the advanced threat. Provides multiple, simultaneous engagements of attacking aircraft using saturation, maneuver and sophisticated electronic countermeasures in an all-weather environment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(815)	816.7	(815)	896.6	(817)	883.2
Initial Spares		29.9		47.1		-
Subtotal		846.6		943.7		883.2
RDT&E		22.6		37.3		23.7
Military Construction		1.1		2.8		2.3
TOTAL		870.3		983.8		909.2

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Pedestal Mounted STINGER (PMS), Army

Description: The PMS System is a lightweight, highly mobile transportable surface-to-air missile system mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV). PMS, with a two man crew, can fire on the move and be operated remotely. Individual STINGER missiles may be extracted from the Standard Vehicle Mounted Launchers (SVML) and fired in a man-portable configuration. PMS fills the Line of Sight-Rear (LOS-R) portion of the Forward Area Air Defense System (FAADS). The prime contractor is Boeing Corporation, Huntsville, AL.

Mission: Provides low altitude air defense in the heavy, light, and special divisions, Armored Cavalry Regiments, and corps air defense brigades.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(100)	92.3	(122)	114.1	(88)	123.1
Initial Spares		6.5		8.3		-
Subtotal		98.8		122.4		123.1
RDT&E		-		-		-
Military Construction		-		-		-
TOTAL		98.8		122.4		123.1



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: STINGER Missile, Army

Description: STINGER is a man-portable, shoulder-fired, infrared guided missile system in a disposable launch tube with a reusable grip stock and Identification Friend or Foe (IFF) unit. Provides low-altitude air defense against jet, prop-driven, and helicopter aircraft. STINGER is produced by General Dynamics, Pomona, CA and Raytheon Corporation, West Andover, MA.

Mission: To provide air defense for ground forces against fixed and rotary wing aircraft.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6,750)	241.3	(2,375)	114.7	(7,203)	252.4
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		241.3		114.7		252.4
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		241.3		114.7		252.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TOW-2 Missile System, Army

Description: TOW-2 is a heavy, anti-tank/assault, wire-guided missile system, consisting of a missile, a launcher system, missile guidance set, and other ground support equipment. It is mounted on a variety of combat vehicles, including Bradley, ITV, M113, HMMWV, and the COBRA/TOW helicopter. Maximum range is 3,750 meters. Prime contractors for the missile are Hughes Aircraft Company, Tucson, AZ and McDonnell Douglas, Titusville, FL.

Mission: To defeat armor and hardpoint targets.

		<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
		<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement							
Item	(12,000)	143.1	(9,455)	105.4	(13,284)	219.5	
Initial Spares		-		3.0		-	
		<hr/>		<hr/>		<hr/>	
Subtotal		143.1		108.4		219.5	
RDT&E		24.6		50.8		42.9	
Military Construction		-		-		-	
		<hr/>		<hr/>		<hr/>	
TOTAL		167.7		159.2		262.4	

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Anti-Tank Weapon System-Medium

Description: The Advanced Anti-Tank Weapon System-Medium will replace the existing DRAGON as the infantry anti-tank weapon. This program will provide for the development of a medium man-portable system for the dismounted infantry capable of defeating an evolving Soviet armor threat and allowing operation in day/night adverse weather conditions, and in the presence of battlefield obscurants.

Mission: To defeat armor targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<u>Procurement</u>						
Item	(-)	-	(-)	-	(-)	15.5
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		15.5
RDT&E		106.2		137.9		76.8
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		106.2		137.9		92.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AMRAAM Missile, Navy

Description: The Advanced Medium Range Air-to-Air Missile (AMRAAM) is an all weather, all-environment radar guided missile developed to improve capabilities against very low-altitude and high-altitude, high-speed targets in an electronic countermeasures environment. The prime contractors are Hughes Aircraft Company, Tucson, AZ and Raytheon Corporation, Lowell, MA.

Mission: To destroy low and high altitude, high-speed enemy targets in an electronic countermeasures environment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(26)	34.8	(85)	107.9	(550)	421.9
Initial Spares		-		.7		1.0
Subtotal		<u>34.8</u>		<u>108.6</u>		<u>422.9</u>
RDT&E		12.5		7.0		3.7
Military Construction		-		-		-
TOTAL		<u>47.3</u>		<u>115.6</u>		<u>426.6</u>

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HARM Missile, Navy

Description: The High Speed Anti-Radiation Missile (HARM) is an air-to-surface missile designed to suppress or destroy land and sea-based radars involved with enemy air defense systems. The prime contractor is Texas Instruments, Dallas, TX. Ford Aerospace and Communications Corporation, Newport Beach, Ca is being qualified as a second source for the guidance system.

Mission: To suppress or destroy enemy radars that direct air defense artillery or surface-to-air missiles.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1,307)	300.8	(1,162)	291.8	(1,320)	339.4
Initial Spares		3.3		3.7		1.6
		<hr/>		<hr/>		<hr/>
Subtotal		304.1		295.5		341.0
RDT&E		10.8		16.6		10.4
Military Construction		3.1		2.9		-
		<hr/>		<hr/>		<hr/>
TOTAL		318.0		315.0		351.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HARPOON Missile, Navy

Description: The HARPOON is a ship, air and submarine-launched all-weather anti-ship and land-attack cruise missile. The prime contractor is McDonnell-Douglas of St. Louis, MO.

Mission: To attack enemy destroyers, cruisers, patrol craft, and other enemy shipping and shore targets as required.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(119)	172.9	(190)	212.1	(215)	241.1
Initial Spares		2.2		5.8		3.2
		<hr/>		<hr/>		<hr/>
Subtotal		175.1		217.9		244.3
RDT&E		26.0		3.0		-
Military Construction		-		3.5		-
		<hr/>		<hr/>		<hr/>
TOTAL		201.1		224.4		244.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HELLFIRE Missile, Navy

Description: HELLFIRE is an anti-armor missile fired from the AH-1T/J helicopter. The prime contractors are Martin Marietta, Orlando, Florida and Rockwell International, Duluth, GA.

Mission: To provide the Marine Corps with the ability to penetrate modern armor with minimum exposure of the launching platform to enemy counterfire.

		<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>
		<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>
Procurement						
Item	(1,000)		34.8	(1,098)	50.3	(1,198) 42.1
Initial Spares			.8		1.6	1.1
Subtotal			<u>35.6</u>		<u>51.9</u>	<u>43.2</u>
RDT&E			-		-	-
Military Construction			-		-	-
TOTAL			<u>35.6</u>		<u>51.9</u>	<u>43.2</u>

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MAVERICK Missile, Navy

Description: The MAVERICK missile family consists of IIR MAVERICK and Laser MAVERICK missiles. The IIR MAVERICK is a forward-fired air-to-ground missile utilizing imaging infrared guidance while the Laser MAVERICK is a laser-guided air-to-ground missile. Both missiles can be deployed from land or carrier-based aircraft. The prime contractors for these missiles are Hughes Aircraft Corporation, Tucson, AZ and Raytheon Corp., Lowell, MA.

Mission: To provide the Navy and Marine Corps with a short-range, line-of-sight, day-night weapon for interdiction close air support and strike missions against ship and land targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(731)	82.7	(560)	66.4	(-)	5.8
Initial Spares		1.3		1.4		-
		<hr/>		<hr/>		<hr/>
Subtotal		84.0		67.8		5.8
RDT&E		-		-		-
Military Construction		<hr/>		<hr/>		<hr/>
TOTAL		84.0		67.8		5.8



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: PENGUIN Missile, Navy

Description: The Penguin missile provides a short range, air-to-surface anti-ship missile system to be operated from the LAMPS MK-III SH-60B helicopter. The prime contractor is Norsk Forsvarsteknologli of Norway.

Mission: To provide the Navy with a short range, air-to-surface anti-ship weapon.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	3.5	(64)	66.3	(65)	44.2
Initial Spares		-		1.0		3.6
		_____		_____		_____
Subtotal		3.5		67.3		47.8
RDT&E		8.0		5.8		-
Military Construction		_____		_____		_____
TOTAL		11.5		73.1		47.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: PHOENIX Missile, Navy

Description: The PHOENIX is a supersonic, all-weather, long-range, air-to-air missile with semi-active mid-course and active terminal guidance, which provides long-range standoff capability. The prime contractors are Hughes Aircraft Company, Tucson, AZ and Raytheon Corporation, Lowell, MA. FY 1990 is the last year of procurement.

Mission: Destruction of multiple air targets with conventional warheads.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(403)	394.4	(420)	323.3	(-)	-
Initial Spares		-		2.2		-
		<hr/>		<hr/>		<hr/>
Subtotal		394.4		325.5		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		394.4		325.5		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: RAM (Rolling Airframe Missile)

Description: RAM is a high-fire-power, low-cost, lightweight, complementary self-defense system to engage anti-ship missiles. The prime contractors are General Dynamics of Pomona, CA and RAMSYS of West Germany.

Mission: To provide ship defense by destroying anti-ship missiles.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(260)	51.8	(580)	90.2	(405)	70.4
Initial Spares		.7		.9		.7
		<hr/>		<hr/>		<hr/>
Subtotal		52.5		91.1		71.1
RDT&E		7.3		5.1		3.0
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		59.8		96.2		74.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SPARROW, Navy

Description: SPARROW is a semi-active, radar-guided missile used in air-to-air and ship-to-air applications in several U.S., Allied and NATO weapon systems. Raytheon Corporation of Lowell, MA, and General Dynamics of Camden, AK are the prime contractors. FY 1989 was the last year of procurement.

Mission: To destroy a broad spectrum of airborne targets from all aspects, in all-weather conditions, and in a variety of countermeasure environments.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(318)	57.0	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		57.0		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		57.0		-		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: STANDARD Missile

Description: The STANDARD missile family consists of supersonic, medium and extended range, surface-to-air and surface-to-surface missiles. The prime contractors are General Dynamics of Pomona, CA, and Raytheon Corporation, Lowell, MA.

Mission: To provide all-weather, anti-aircraft and surface-to-surface armament for cruisers, destroyers and guided missile frigates.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1,310)	594.6	(940)	390.2	(900)	607.8
Initial Spares		.7		4.4		6.0
		<hr/>		<hr/>		<hr/>
Subtotal		595.3		394.6		613.8
RDT&E		54.6		55.5		44.7
Military Construction		20.2		13.5		-
		<hr/>		<hr/>		<hr/>
TOTAL		670.1		463.6		658.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TOMAHAWK

Description: The TOMAHAWK cruise missile weapon system is a long-range system (nuclear or conventionally armed) which is sized to fit torpedo tubes and capable of being deployed from a variety of air, surface-ship, submarine, and land platforms. The prime contractors are General Dynamics-Convair, San Diego, CA, and McDonnell-Douglas, St. Louis, MO.

Mission: To provide a long-range cruise missile launched from a variety of platforms against land and sea targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(510)	675.2	(400)	572.0	(600)	808.7
Initial Spares		20.8		33.7		28.1
		_____		_____		_____
Subtotal		696.0		605.7		836.8
RDT&E		56.6		18.1		15.4
Military Construction		-		4.6		11.2
		_____		_____		_____
TOTAL		752.6		628.4		863.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TRIDENT II Missile, Navy

Description: The TRIDENT II is a submarine launched ballistic missile with greater range/payload capability and improved accuracy than the TRIDENT I. The major contractor is Lockheed Missile and Space Company, Sunnyvale, CA.

Mission: To deter nuclear war by means of assured retaliation in response to a major attack on the U.S. and to enhance nuclear stability by providing no incentive for enemy first strike.

		<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>
		<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>
Procurement						
Item	(66)		1,865.6	(42)	1,439.2	(52) 1,536.4
Initial Spares			2.9		1.5	1.6
Subtotal			1,868.5		1,440.7	1,538.0
RDT&E			567.2		213.9	91.8
Military Construction			14.6		7.6	115.9
TOTAL			2,450.3		1,662.2	1,745.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Vertical Launched ASROC (VLA)

Description: The Vertical Launched Antisubmarine Rocket (VLA) provides an intermediate range, all-weather quick reaction anti-submarine capability for ships designated to receive the new Vertical Launching System, such as the DD-963, CG-47 and DDG-51. The torpedo payload for the VLA is a MK-46 torpedo. Beginning in FY 1991, efforts begin to integrate a MK-50 torpedo with the VLA. The prime contractor is Loral Systems Group of Akron, OH.

Mission: The VLA will deliver a torpedo to destroy or neutralize enemy submarines.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(300)	104.4	(-)	-	(-)	-
Initial Spares		5.5		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		109.9		-		-
RDT&E		29.5		2.0		30.0
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		139.4		2.0		30.0



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HAWK Missile, Marine Corps

Description: The HAWK Missile System is an all-weather, mobile, guided missile air defense system. The prime contractor is Raytheon Corporation of West Andover, MA.

Mission: Provides air defense against high speed aircraft at low to medium altitudes.

	<u>FY 1989</u>		<u>FY1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(467)	132.2	(-)	-	(-)	-
Initial Spares		3.0		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		135.2		-		-
RDT&E		5.0		9.3		6.7
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		140.2		9.3		6.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: STINGER Missile, Marine Corps

Description: STINGER is a man-portable, shoulder-fired, infrared guided missile system in a disposable launch tube with a reusable grip stock and Identification Friend-or-Foe (IFF) units. It provides low altitude air defense against jet, prop-driven, and helicopter aircraft. STINGER is produced by General Dynamics, Pomona, CA and Raytheon Corporation, West Andover, MA.

Mission: To provide the U.S. Marine Corps with a highly mobile low-altitude air defense capability for forward area units, troops on the move, and vital rear area installations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(3,115)	141.1	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		141.1		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		141.1		-		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TOW-2 Missile, Marine Corps

Description: TOW-2 is a heavy, anti-tank/assault, wire-guided missile system, consisting of a missile, a launcher system, and other ground support equipment. Mounted on a variety of combat vehicles and the COBRA/TOW helicopter, the maximum range is 3,750 meters. The contractors for the missile are Hughes Aircraft Company, Tucson, AZ and McDonnell Douglas Corporation, Titusville, FL.

Mission: To provide the Marine Amphibious Force with heavy, long-range, anti-tank/assault fire capability for employment against armored vehicles and fortified point targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2,469)	25.7	(577)	10.0	(662)	10.1
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		25.7		10.0		10.1
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		25.7		10.0		10.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Medium Range Air-to-Air Missile (AMRAAM), Air Force

Description: AMRAAM is the joint Air Force and Navy SPARROW replacement missile, which will provide launch and leave capability and the capacity for multiple target engagement in a single intercept. The Air Force is the Executive Service. Hughes Aircraft Corporation, Tucson, AZ and Raytheon Corporation, Lowell, MA are the prime contractors.

Mission: Provide all-weather, all-aspect air-to-air missile capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(874)	795.4	(815)	687.8	(1,250)	893.4
Initial Spares		5.7		10.8		22.1
		<hr/>		<hr/>		<hr/>
Subtotal		801.1		698.6		915.5
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		801.1		698.6		915.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HARM, Air Force

Description: HARM is an air-to-surface missile that is guided to enemy radar sites by homing on emitted signals. The prime contractor is Texas Instruments, Dallas, TX. Ford Aerospace and Communications Corporation, Newport Beach, CA., is being qualified as a second source for the guidance system.

Mission: Detect and destroy, or suppress enemy radars, primarily surface-to-air missile (SAM) radar sites and anti-aircraft radar sites.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(893)	211.6	(326)	76.5	(120)	30.3
Initial Spares		5.8		4.5		3.3
		<hr/>		<hr/>		<hr/>
Subtotal		217.4		81.0		33.6
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		217.4		81.0		33.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: IIR MAVERICK, Air Force

Description: The IIR MAVERICK is an air-to-ground missile that incorporates imaging infrared (IIR), using thermal detection technology. Hughes Aircraft Corporation, Tuscon, AZ and Raytheon Corporation, Lowell, MA are the prime contractors.

Mission: Provides an effective 24-hour day/night adverse weather warfare against tanks, fortifications, and other ground/surface targets.

		<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>
		<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>
Procurement						
Item	(2,540)	253.0	(2,270)	168.7	(-)	7.3
Initial Spares		8.1		4.8		-
		<hr/>		<hr/>		<hr/>
Subtotal		261.1		173.5		7.3
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		261.1		173.5		7.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: PEACEKEEPER, Air Force

Description: The PEACEKEEPER is an advanced, highly accurate Multiple Independently Targetable Reentry Vehicle (MIRV) Intercontinental Ballistic Missile (ICBM). Full scale development of the Rail Garrison basing mode for PEACEKEEPER is progressing and advance procurement leading to FY 1991 production of rail garrison basing equipment is included in the FY 1990 program. The PEACEKEEPER missile will be placed on railroad cars during peacetime at military installations around the country. During times of national emergency, the PEACEKEEPER missiles could be moved to classified locations.

Mission: The mission of the PEACEKEEPER is to support the Single Integrated Operational Plan (SIOP) and to deter a strategic attack on the U.S.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(12)	792.5	(12)	832.5	(12)	1,861.0
Initial Spares		1.7		1.3		158.7
		<hr/>		<hr/>		<hr/>
Subtotal		794.2		833.8		2,019.7
RDT&E		458.7		774.2		548.0
Military Construction		13.2		115.7		268.6
		<hr/>		<hr/>		<hr/>
TOTAL		1,266.1		1,723.7		2,836.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SIDEWINDER, Air Force

Description: The SIDEWINDER is an infrared, short-range, air-to-air missile carried by Navy and Air Force fighter and attack aircraft for use against all enemy aircraft. The prime contractors are Raytheon Corporation, Lowell, MA and Ford Aerospace and Communications Corporation, Newport Beach, CA.

Mission: Short-range, infrared homing, air-to-air missile designed for air-to-air combat in visual encounters.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(760)	37.1	(-)	.5	(-)	.4
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		37.1		.5		.4
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		37.1		.5		.4



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SPARROW, Air Force

Description: Sparrow is a semi-active, radar-guided, air-to-air missile. Raytheon Corporation, Lowell, MA and General Dynamics, Pomona, CA are the prime contractors.

Mission: Provide U.S. aircraft with an all-aspect capability under all-weather conditions against high performance air-to-air combat enemy aircraft.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(354)	54.0	(-)	-	(-)	-
Initial		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		54.0		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		54.0		-		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SRAM II

Description: SRAM II is a supersonic, air-to-ground nuclear weapon that severely stresses the defensive threat. The prime contractor is Boeing Aerospace Corporation.

Mission: To strike defended, hard and relocatable targets without having to directly overfly targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	10.7	(-)	21.2
Initial Spares		<u>-</u>		<u>-</u>		<u>5.3</u>
Subtotal		-		10.7		26.5
RDT&E		190.9		215.6		156.9
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		190.9		226.3		183.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: HAVE NAP

Description: HAVE NAP is a conventional standoff precision guided weapon. The prime contractor is Rafael Industries, Israel.

Mission: Destroy high value point and defense suppression targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6)	8.3	(22)	23.4	(26)	25.8
Initial Spares		<u>-</u>		<u>1.3</u>		<u>2.1</u>
Subtotal		8.3		24.7		27.9
RDT&E		27.8		-		-
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		36.1		24.7		27.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Cruise Missile (ACM)

Description: The ACM is a low-observable air launched cruise missile with substantial improvements in survivability, range, accuracy and targeting flexibility. It will allow SAC bombers to cover the entire Soviet Union from launch points beyond the range of far-forward defense. Its low observable design and terrain-following capability insures high probability of defense penetration. The highly accurate navigation system provides hard target kill capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(100)	315.2	(100)	473.3
Initial Spares		-		9.4		15.3
		<hr/>		<hr/>		<hr/>
Subtotal		-		324.6		488.6
RDT&E		97.0		43.0		52.3
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		97.0		367.6		540.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Oceanographic Research Ship

Description: A new class of oceanographic research vessels capable of operating worldwide in all seasons, and suitable for use by Navy laboratories, contractors and academic institutions. These ships meet changing oceanographic requirements for general, year-round, world-wide, ocean research which includes launching, towing and recovering a variety of large and heavy equipment.

Mission: Provides general oceanographic research capabilities supporting multiple geophysical disciplines in near coastal to deep ocean areas.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(3)	274.6	(1)	43.1
Outfitting		.8		1.1		1.8
Post Delivery		-		-		2.4
		<hr/>		<hr/>		<hr/>
Subtotal		.8		275.7		47.3
RDT&E		5.1		1.8		.5
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		5.9		277.5		47.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AO (Jumbo) Auxiliary Oiler

Description: This program provides for the conversion of five existing AO-177 class fleet oilers to increase cargo capacity. Work is performed at Avondale Shipyard, New Orleans, LA.

Mission: Transport bulk petroleum, oil and lubricants (POL) from shore depots to AOE, AOR, TAO, AO, and other combatants underway. The AO(Jumbo) is intended to receive and deliver fleet freight, mail and personnel.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2)	74.5	(1)	35.2	(-)	-
Outfitting		-		.8		.9
Post Delivery		-		-		5.0
		<hr/>		<hr/>		<hr/>
Subtotal		74.5		36.0		5.9
RDT&E		4.3		.5		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		78.8		36.5		5.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: AOE Fast Combat Support Ship

Description: A twin screw, 26 knot sustained speed, gas turbine combat support ship, 753 feet 8 inches in overall length, 107 feet in beam, and a draft of 38 feet, with a total of 667 accommodations. The present deficiency of AOE's requires substitution of less capable auxiliary support ships in battle groups. The contract for AOE construction was awarded competitively to NASSCO in San Diego, CA. This contract provides options for three more ships from FY 1989 to FY 1991.

Mission: Provides delivery of on-station munitions, bulk petroleum oil, lubricants (POL), and dry and frozen provisions to the battle groups underway in hostile environments. The AOE significantly extends the endurance of the battle group for combat operations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1)	361.9	(1)	379.8	(1)	398.2
Outfitting		3.4		4.8		2.3
Post Delivery		-		-		5.0
		<hr/>		<hr/>		<hr/>
Subtotal		365.3		384.6		405.5
RDT&E		-		.8		10.1
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		365.3		385.4		415.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Aircraft Service Life Extension Program  
(CV SLEP)

Description: The purpose of this program is to perform repairs, alterations and modernization on Forrestal class carriers in order to extend their service life from a nominal 30 years to 45 years. Work will be performed at the Philadelphia Naval Shipyard.

Mission: The mission of the ship is to support and operate aircraft and engage in attacks on targets afloat and ashore which threaten our use of the sea.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	62.7	(1)	643.3	(-)	113.1
Outfitting		8.0		26.8		17.4
Post Delivery		-		-		20.5
Subtotal		<hr/> 70.7		<hr/> 670.1		<hr/> 151.0
RDT&E		7.6		8.0		8.0
Military Construction		-		-		-
TOTAL		<hr/> 78.3		<hr/> 678.1		<hr/> 159.0



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: DDG 51, Navy

Description: The ARLEIGH BURKE Class Guided Missile Destroyer is 466 feet long and displaces less than 8,300 tons. It will be armed with a Vertical Launching System accommodating 90 missiles, including TOMAHAWK, SM-2 and ASROC. Prime features include the SPY-1D Radar, SQS-53C Sonar, SQR-19 TACTAS, three MK-99 Illuminators, 5"/54 rapid fire gun with SEAFIRE Fire Control System, Close-In-Weapon System and SLQ-32 Electronic Warfare System and decoy launchers. The class is designed with a gas turbine propulsion system. The lead ship was awarded to Bath Iron Works, Bath, ME in FY 1985. Ingalls Shipbuilding Division of Pascagoula, MS has also been awarded follow-ships.

Mission: The DDG 51 Class will operate defensively and offensively as units of Carrier Battle Groups and Surface Action Groups, in support of Underway Replenishment Groups and the Marine Amphibious Task Force in multi-threat environments that include air, surface, and subsurface threats.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(4)	2,791.5	(5)	3,451.7	(5)	3,570.0
Outfitting		.1		11.6		10.2
Post Delivery		-		-		19.1
		<hr/>		<hr/>		<hr/>
Subtotal		2,791.6		3,463.3		3,599.3
RDT&E		37.2		37.8		81.4
Military Construction		8.5		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		2,837.3		3,501.1		3,680.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Landing Craft, Air Cushion (LCAC)

Description: This air cushion vehicle is 88 feet long and 47 feet wide. The craft can operate over both water and land. It can be carried in the well deck of present and future amphibious ships. It has a payload capability of 60 tons and can operate at 40 knots with this load. Contractors are Bell Aerospace Textron of New Orleans, LA and Avondale Gulfport Marine.

Mission: Transports weapons systems, equipment, cargo and personnel of the assault elements of the Marine air/ground task force from ship-to-shore and across the beach.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(15)	305.0	(12)	269.8	(12)	267.9
Outfitting		-		-		-
Post Delivery		1.0		4.0		2.2
Subtotal		<u>306.0</u>		<u>273.8</u>		<u>270.1</u>
RDT&E		-		-		-
Military Construction		-		1.4		22.7
TOTAL		<u>306.0</u>		<u>275.2</u>		<u>292.8</u>

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: LHD-1 Amphibious Assault Ship

Description: The LHD is a twin screw, 22 knot multi-purpose amphibious assault ship, 844 feet in overall length, 106 foot beam with accommodations for 2,802 personnel, including troops. The first four ships of the class have been awarded to Ingalls Shipbuilding Division, Pascagoula, MS. The LHD is required to augment current amphibious lift capacity, ultimately replacing LPH class ships in the 1990s.

Mission: To embark, deploy, and land elements of a Marine landing force in an assault by helicopters, V/STOL aircraft, landing craft, and amphibious vehicles. The LHD can be used in a convertible role either as sea control or force projection.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1)	728.8	(-)	34.6	(1)	959.8
Outfitting		7.1		14.4		9.3
Post Delivery		23.2		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		759.1		49.0		969.1
RDT&E		3.5		7.8		2.0
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		762.6		56.8		971.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Dock Landing Ship (LSD 41) Cargo Variant

Description: A twin screw, diesel propelled amphibious assault ship, 609 feet overall length, 84 feet maximum beam, with a total of 917 accommodations.

Mission: To transport and launch loaded amphibious craft, cargo and vehicles with their crews and embarked personnel in amphibious assault operations. It will also provide limited docking and repair services for conventional craft and the Landing Craft Air Cushion (LCAC). LSD-41 Cargo variant class ships are required in order to make up a cargo shortfall. The lead FY 1988 ship was awarded to Avondale Shipyard, New Orleans, LA, with an option for four more ships from FY 1990 to FY 1993.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	226.4	(1)	240.0
Post Delivery		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		226.4		240.0
RDT&E		-		-		-
Military Construction		-		3.8		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		230.2		240.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MCM Mine Countermeasures Ship

Description: The 224 foot wooden hull MCM ship will utilize low magnetic signature equipment, diesel propulsion and two controllable reversible pitch propellers. The ship will conduct mine clearance operations utilizing AN/SSN-2 Precise Integrated Navigation System (PINS), AN/SLQ-48 Mine Neutralization System (MNS), AN/SQQ-30 Sonar or the AN/SQQ-32 Advanced Minehunting Sonar, AN/WQN-1(V) Channel Finder, and various standard inservice mechanical and influence minesweeping equipments. Prime contractors are Peterson Boatbuilders Inc., and Marinette Shipyard in Sturgeon Bay, Wisconsin.

Mission: To clear acoustic and magnetic influence and contact type mines from the ocean bottom and surrounding water. The MCM ship and helicopter countermeasures operations will complement each other in shallow and deep water.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(3)	337.2	(-)	-
Outfitting		5.3		2.8		13.4
Post Delivery		4.7		7.0		2.4
		<hr/>		<hr/>		<hr/>
Subtotal		10.0		347.0		15.8
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		10.0		347.0		15.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MHC-1 Coastal Minehunter

Description: The Coastal Mine Hunter will be a glass reinforced plastic hull ship 188 feet in length. It will be capable of coastal mine clearance operations of up to 5 days duration without replenishment. The lead ship was awarded to Intermarine USA. Avondale Shipyards, New Orleans, LA, has been selected as a second source.

Mission: Hunt, sweep, and/or neutralize modern enemy moored and bottom mines in a coastal scenario to allow breakout of U.S. combatant and resupply ships from key CONUS military and commercial ports.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2)	194.4	(2)	194.8	(3)	268.1
Escalation/Cost Growth		-		-		-
Outfitting		.4		1.1		11.8
Postal Delivery		-		-		-
Subtotal		194.8		195.9		279.9
RDT&E		2.2		3.1		1.1
Military Construction		-		-		-
TOTAL		197.0		199.0		281.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: High Speed Nuclear Attack Submarine,  
New Design Submarine, SSN-21

Description: The SSN-21 will be 353 feet long, and displace 9,150 tons. These single screw submarines will be equipped with MK 48 torpedoes, HARPOON and TOMAHAWK missiles, the AN/BSY-2 Combat System and other submarine weapons. The SSN-21 is capable of long endurance, submerged patrols. The lead ship contract was awarded to Electric Boat Division of General Dynamics in Groton CT. Newport News Shipbuilding and Drydock Company of Newport News, VA, is expected to compete for follow-ship awards.

Mission: To counter the rapidly increasing capabilities of the Soviet submarine and surface forces projected for the 1990's and beyond.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1)	1,687.7	(-)	606.3	(2)	3,482.0
		<hr/>		<hr/>		<hr/>
Subtotal		1,687.7		606.3		3,482.0
RDT&E		187.2		181.9		186.9
Military Construction		-		26.8		27.3
		<hr/>		<hr/>		<hr/>
TOTAL		1,874.9		815.0		3,668.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SSN-688 Nuclear Attack Submarine

Description: This nuclear attack submarine is 360 feet long and displaces 6,900 tons. It carries a crew of 133, is equipped with Mark-48 torpedoes, HARPOON, and SUBROC missiles and is capable of long endurance submerged patrols. The improved SSN-688 incorporates the AN/BSY-1 combat system and an Improved Propulsion Machinery Plant (IPMP). Prime contractors are Newport News SBDD Company of Newport News, VA and General Dynamics Corporation, Electric Boat Division, of Groton, CT.

Mission: Destroy enemy ships, primarily other submarines, in order to prohibit the employment of such forces in attack and destruction of U.S. and allied targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2)	1,298.5	(1)	732.9	(-)	-
Outfitting		17.7		35.1		51.2
Post Delivery		7.0		14.0		-
		<hr/>		<hr/>		<hr/>
Subtotal		1,323.2		782.0		51.2
RDT&E		-		-		-
Military Construction		1.7		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		1,324.9		782.0		51.2



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SWATH TAGOS SURTASS Ship

Description: The TAGOS Ocean Surveillance Ship serves as a platform to support towed arrays and data processing/transmitting equipments of the SURTASS system. The Small Waterplane Area Twin Hull (SWATH) configuration is a twin hull, twin screw, 12 knot ship that is approximately 281 feet long and 96 feet wide. McDermott Inc, Morgan City, LA is currently building four small SWATH TAGOS. The FY 1990 ship is a larger platform designed to carry a second acoustic system. The FY 1990 award will be competed.

Mission: Designed to support the towed arrays and data processing/transmitting equipments of the SURTASS system, as a unit of the Military Sealift Command.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(3)	184.2	(1)	153.8	(-)	-
Outfitting		1.1		2.4		8.3
Post Delivery		1.0		2.0		4.0
		<hr/>		<hr/>		<hr/>
Subtotal		186.3		158.2		12.3
RDT&E		5.5		2.4		1.8
Military Construction		-		-		17.4
		<hr/>		<hr/>		<hr/>
TOTAL		191.8		160.6		31.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TAO (Fleet Oiler)

Description: The TAO is a commercialized AO-177 Class Fleet Oiler design with a 20 knot speed capability and 180,000 barrel capacity. Accommodations are for 106 Military Sealift Command crew, a Navy Command, Control, and Communications team of 21 men and 10 transient personnel. Avondale Shipyard, New Orleans, LA and Tampa Shipyards of Tampa, FL. are currently building TAO ships.

Mission: Operates independently or as a unit of an underway replenishment group to furnish petroleum products to operating forces at sea and in port, and deliver and receive fleet freight, mail and personnel. These ships will also be capable of replenishing from five stations simultaneously.

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
		<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement				
Item	(5)	688.2	(-)    -	(-)    -
Outfitting		3.5	3.9	10.7
Post Delivery		5.6	2.6	8.1
		<hr/>	<hr/>	<hr/>
Subtotal		697.3	6.5	18.8
RDT&E		-	-	-
Military Construction		-	-	-
		<hr/>	<hr/>	<hr/>
TOTAL		697.3	6.5	18.8

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: TRIDENT Submarine, Navy

Description: The TRIDENT submarine is a nuclear submarine equipped with 24 long range strategic ballistic missiles. It is designed to be highly survivable in a hostile Antisubmarine Warfare environment. Other features include an operating cycle of not less than 9 years between overhaul/refueling, plus an operating life in excess of 20 years. Prime contractor is Electric Boat Division, of Groton, CT.

Mission: Provides an undersea strategic missile system ensuring that the U.S. continues to maintain a credible, survivable strategic deterrent independent of foreseeable threats.

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement			
Item	(1) 1,217.2	(1) 1,214.7	(1) 1,387.7
Outfitting	3.7	9.3	12.7
Post Delivery	16.0	-	14.9
Subtotal	1,236.9	1,224.0	1,415.3
RDT&E	29.5	32.5	37.4
Military Construction	36.7	24.9	-
TOTAL	1,303.1	1,281.4	1,452.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: United States Coast Guard Icebreaker

Description: A twin-screw, twin rudder, 12.6 knot AC-AC cycloconverter diesel electric polar icebreaker (18.6 knot maximum speed), 460 feet overall length, 94 feet maximum beam, 32 feet maximum draft, with a total of 164 accommodations (134 crew/aviation detachment and 30 scientists). The design icebreaking capability is 4.5 feet of level ice at a continuous speed of 3 knots. It also has a helicopter flight deck and hanger capable of providing weather protection for two HH65A helicopters or a single H60 helicopter. This procurement will be competed.

Mission: To conduct icebreaking operations in any season in the Arctic and Antarctic to support ice escort for supply vessels; to provide logistic support to installations and bases; and to serve as a cold region research platform for embarked scientists and researchers working in science and engineering.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	324.8	(-)	-
Outfitting		-		-		-
Postal Delivery		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal				324.8		
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		324.8		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Moored Training Ship, Navy

Description: A converted Fleet Ballistic Missile (FBM) submarine: 425 feet overall length and 33 feet maximum beam. Work will be performed at the Charleston Naval Shipyard.

Mission: To provide for the rigorous training in the practical aspects of naval nuclear propulsion plant operations. This ship is needed to meet fleet manning requirements for trained nuclear operators.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(1)	217.2	(-)	-
Outfitting		.6		.1		-
Post Delivery		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		.6		217.3		-
RDT&E		-		-		-
Military Construction		-		-		25.1
		<hr/>		<hr/>		<hr/>
TOTAL		.6		217.3		25.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: ENTERPRISE Refueling/Modernization, Navy

Description: The ENTERPRISE (CVN-65) is propelled by a nuclear plant having eight reactors. The total manning is 3,208 (172 officers and 3,036 enlisted). Length overall is 1040' with maximum flight deck width of 257'2". The purpose of this program is to provide for the nuclear refueling of the CVN-65 and to perform repairs/alterations and modernization to extend the service life of the ship from a nominal 30 years to 45 years. Work will be performed at Norfolk Naval Shipyard and Newport News Shipbuilding and Dry Dock, Newport News, VA.

Mission: To support and operate aircraft to engage in attacks on targets afloat and ashore and to engage in sustained operations in support of other forces.

	FY 1989		FY 1990		FY 1991	
	Qty	Amt	Qty	Amt	Qty	Amt
Procurement						
Item	(-)	-	(1)	1,404.1	(-)	-
Outfitting		-		-		-
Postal Delivery		-		-		-
		_____		_____		_____
Subtotal		-		1,404.1		-
O&M		*56.8		-		-
OPN		*22.7		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		79.5		1,404.1		-

\*Appropriated in FY 1989 in O&M and OPN appropriations for long lead requirements.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Bradley Fighting Vehicle Systems

Description: The Infantry Fighting Vehicle/Cavalry Fighting Vehicle (IFV/CFV), named the Bradley Fighting Vehicle, is a full tracked, lightly armored fighting vehicle. Primary armament is the fully stabilized 25mm automatic gun. Secondary armament is the coaxially mounted 7.62mm machine gun and the TOW missile system. Supplementary armament on the IFV is the 5.56mm firing port weapon. All weapons are capable of being employed from fully protected positions within the vehicle. The prime contractor is FMC Corporation, San Jose, CA.

Mission: The mission of the IFV is to provide cross-country mobility and vehicular mounted firepower, able to support mechanized infantry operations in mounted and dismounted combat. The mission of the CFV is to provide armored cavalry and battalion scout squads with the capability to accomplish reconnaissance and security missions.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(641)	683.5	(600)	607.8	(600)	687.9
Initial Spares		3.9		19.0		-
		<hr/>		<hr/>		<hr/>
Subtotal		687.4		626.8		687.9
RDT&E		21.0		9.5		7.1
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		708.4		636.3		695.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: M1A1 Abrams Tank, Army

Description: The Abrams tank is a four-man, highly mobile, full-tracked vehicle with significantly improved survivability provided by new ballistic protection and compartmentalization of ammunition. The Abrams tank mounts a 120mm main gun and three secondary armament systems with improved day/night fire control and shoot-on-the-move capabilities. Higher speeds and faster acceleration provided by a turbine engine make the Abrams tank a more difficult target for opposing ground and air forces. In FY 1991, the Block II Configuration will be introduced. This improvement package adds survivability and lethality enhancements to defeat the tank threat of the future. The Abrams is manufactured by General Dynamics Land Systems Division at Lima, OH and Warren, MI.

Mission: Provide a main battle tank with increased survivability, mobility, firepower, and lethality for US armor forces.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(555)	1,413.3	(448)	1,217.4	(225)	747.3
Initial Spares		30.1		60.8		-
Subtotal		1,443.4		1,278.2		747.3
RDT&E		103.8		52.7		90.7
Military Construction		-		-		-
TOTAL		1,547.2		1,330.9		838.0



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: M1A1 Tank, Marine Corps

Description: The M1A1 main battle tank is a product improvement of the M1 tank currently in use. It will be fielded to all active, reserve, and Maritime Preposition Support tank units. Enhancements include a 120mm cannon, an NBC overpressure system, a Commander's Independent Thermal Viewer, improved CO<sup>2</sup> laser rangefinder, improved armor protection and various RAM-D improvements to the power train and suspension components.

Mission: Provide a main battle tank with increased survivability, mobility, firepower, and lethality for Marine Corps armored forces.

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement				
Item	(66)	156.8	(155) 374.3	(-) -
Initial Spares		5.8	10.0	-
Subtotal		162.6	384.3	-
RDT&E		-	-	-
Military Construction		-	-	-
TOTAL		162.6	384.3	-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: SINGARS

Description: SINGARS is the VHF-FM radio communications system providing the primary means of command control for infantry, armor, airborne and artillery units. It possesses capabilities in excess of the 1960 technology radios it replaces in manpack, vehicular, and airborne configurations. Its frequency-hopping, jam-resistant capability will aid in offsetting the current threat of jamming techniques used against the current family of fixed frequency radios, and will be vital to the commander in assisting him in the conduct of battle within the modern battlefield. SINGARS was developed by ITT. The FY 1990/91 procurement award will be split between ITT and General Dynamics.

Mission: SINGARS will provide secure jam-resistant radio communication at all levels of the battlefield. It has been designed to be fully interoperable with other Services and NATO equipment.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	237.5	(-)	100.0	(-)	311.3
Initial Spares		<u>2.2</u>		<u>1.8</u>		<u>-</u>
Subtotal		239.7		101.8		311.3
RDT&E		9.2		11.7		1.4
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		248.9		113.5		312.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Army Data Distribution System (ADDS)

Description: ADDS, formerly called the PLRS/JTIDS Hybrid (PJJH) Systems, will provide near real-time, secure, jam resistant data communications, position/location, navigation, and identification capability to support the Army automated battlefield. ADDS will consist of a control station which performs net management and control functions. The FY 1989 through FY 1993 program will be for the preplanned product improvement (P3I) low rate initial production equipment.

Mission: Supports battle field tactical operations with reliable real-time, secure, jam resistant data communications, position/location, and identification capabilities. Links the high priority elements of each battlefield functional area and automatically identifies the location of units.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	70.8	(-)	-	(-)	22.2
Initial Spares		<u>5.6</u>		<u>-</u>		<u>-</u>
Subtotal		76.4		-		22.2
RDT&E		19.6		19.1		21.7
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		96.0		19.1		43.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Family of Medium Tactical Vehicles (FMTV)

Description: The Family of Medium Tactical Vehicles (FMTV) is comprised of 2-1/2 ton and 5 ton tactical trucks employing maximum practical commonality of components. FMTV accommodates several mission-oriented body configurations and kit applications in order to satisfy the Army ground transportation requirements in these payload ranges. The FMTV is a partial outgrowth of the Medium Tactical Truck (MTT) Program, replacing the current aged 2-1/2 ton fleet and the overage portions of the 5 ton fleet. The prime contractor will be competitively selected.

Mission: The FMTV is required to fill the 2-1/2 ton truck and 5 ton truck shortfalls and will be operated through the theater by combat support and combat service support units. The system will be designed to operate worldwide on primary and secondary roads, trails, and cross-country terrain.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(392)	56.3
Initial Spares		<u>-</u>		<u>-</u>		<u>-</u>
Subtotal		-		-		56.3
RDT&E		24.8		18.1		7.0
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		24.8		18.1		63.3

PROGRAM ACQUISITION COSTS  
(\$ MILLIONS)

System Nomenclature: 9mm Personal Defense Weapon (PDW)  
Army

Description: The 9mm Personal Defense Weapon is a pistol capable of firing the NATO standard 9mm cartridge with greater firepower, higher probability of hit, and increased reliability than either the current M1911A1, caliber .45 pistol or caliber .38 revolver. The prime contractor is Beretta, U.S.A. of Accokeek, Maryland.

Mission: The 9mm PDW will replace the M1911A1, caliber .45 and caliber .38 handgun on a one-for-one basis. The PDW will provide close-in defense for personnel who are not riflemen or are not issued rifles such as law enforcement personnel, aviators, and others.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(33,078)	7.0	(-)	-	(35,101)	8.0
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		7.0		-		8.0
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		7.0		-		8.0

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: High Mobility Multipurpose Wheeled Vehicle (HMMWV), Army

Description: HMMWV is a 1½ ton payload diesel powered, high mobility 4x4 tactical wheeled vehicle which emphasizes the use of commercial components and a common chassis with six body configurations (TOW weapons carrier, utility, ambulance, squad carrier, shelter carrier, and Stinger weapons carrier). The prime contractor is the LTV Corporation of South Bend, IN.

Mission: TOW and Stinger weapons carrier, command and control, forward observer, forward air control, rear area protection, ambulance, utility carrier and NBC reconnaissance.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(5,071)	152.5	(7,246)	217.5	(8,262)	252.4
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		152.5		217.5		252.4
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		152.5		217.5		252.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Self-Propelled Howitzer, M109 (MOD)

Description: The M109A2 is an improved version of the M109 self-propelled howitzer that was fielded in the early 1960's. The M109A3 is a depot modified M109A1 with the same performance capabilities as the M109. It is designed to provide the primary indirect fire support to the maneuver brigades of the armored and mechanized infantry divisions. The M109 is air transportable in a C-5 aircraft and is capable of firing both conventional and nuclear munitions. The prime contractor is BMY, a division of Harsco Corporation, York, PA.

Mission: Provide the heavy Brigade/Division Commander with a close combat target servicing, interdiction, counterfire, and suppression capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	27.8	(-)	75.5	(-)	206.8
Initial Spares		-		.2		-
Subtotal		27.8		75.7		206.8
RDT&E		28.4		10.5		8.8
Military Construction		-		-		-
TOTAL		56.2		86.2		215.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Armored Personnel Carrier (M113A3)

Description: The M113A3 is a product improved, aluminum armored, full-tracked personnel carrier designed to transport troops, equipment, and cargo during combat operations. The A3 configuration adds spall suppression liners, armored external fuel tanks, an upgraded engine and transmission to accommodate the added weight, and fixing points for bolt-on armor. It operates in numerous roles including: Infantry and Engineer Squad Carrier, Mortar Carrier, Missile Carrier, Command Post, MED-EVAC Carrier, Maintenance Support Vehicle, and other special roles. The M113 carrier fleet will continue to be improved for service in these capacities beyond the year 2000. Because of its mobility, firepower, and armor protection limitations, it cannot fulfill the role of a fighting vehicle and is being replaced in squad carriers and scout vehicle roles of high priority mechanized infantry and cavalry units by the Bradley Fighting Vehicles.

Mission: Provides low-cost, reliable and highly mobile protective carriers for transporting troops, and durable, low-maintenance carriers of ordnance material.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(300)	75.0*	(-)	101.0	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		75.0		101.0		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		75.0		101.0		-

\* Appropriated to National Guard and Reserve Equipment, Defense.



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Mobile Subscriber Equipment (MSE)

Description: MSE will provide automatic, secure, mobile, radio, telephone and data service for command and control at the Corps and Division level. MSE is being acquired using a nondevelopmental acquisition strategy to reduce the time between acquisition and fielding. MSE will be fielded to both active and reserve component units. The prime contractor is General Telephone and Electronics (GTE).

Mission: MSE provides communications in Corps and Divisions with the mobility, flexibility, security, and survivability essential to support the commander in the air-land battle.

	FY 1989		FY 1990		FY 1991	
	Qty	Amt	Qty	Amt	Qty	Amt
Procurement						
Item	(-)	991.1	(-)	934.7	(-)	27.7
Initial Spares		38.4		44.1		-
		_____		_____		_____
Subtotal		1,029.5		978.8		27.7
RDT&E		-		-		-
Military Construction		-		-		-
		_____		_____		_____
TOTAL		1,029.5		978.8		27.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: 25mm Vehicle Rapid Fire Weapon System  
(VRFWS) - BUSHMASTER, M242

Description: The Vehicle Rapid Fire Weapons System (VRFWS), M242, is an externally powered, 25mm automatic gun. It will fire single shot, 100, and 200 rounds per minute. As the primary weapon for the Bradley Fighting Vehicle, the VRFWS is fully stabilized. The prime contractor for the 25mm gun is Hughes Helicopter Corporation, Culver City, CA.

Mission: The mission of the VRFWS, as the primary weapon for the Bradley, is to provide the capability to defeat enemy reconnaissance and mechanized combat vehicles, personnel, and unarmored targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(853)	29.7	(560)	18.7	(611)	27.5
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		29.7		18.7		27.5
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		29.7		18.7		27.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Family of Heavy Tactical Vehicles (PLS)

Description: The Palletized Load System (PLS) is comprised of 16.5 Ton tactical trucks with trailers employing the maximum practical use of commercial components. Each truck/trailer combination shall be provided with a common flatrack. The PLS program accommodates two mission oriented body configurations, with and without a material handling crane, and kit applications in order to satisfy currently existing individual Army ground transportation requirements. The PLS programs will be competitively awarded in FY 1990.

Mission: The PLS is a key transportation component of the total distribution of supplies and equipment required in order to overcome the supply, transportation, and unit mobility shortfalls. The PLS will operate throughout the battlefield as a flexible, multi-purpose transportation and unit mobility system which will be designed to operate worldwide on primary and secondary roads and rough trails.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(105)	43.3	(494)	150.6
Initial Spares		<u>-</u>		<u>4.0</u>		<u>-</u>
Subtotal		-		47.3		150.6
RDT&E		28.0		5.3		-
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		28.0		52.6		150.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Personal Defense Weapon, 9mm,  
Navy

Description: The 9mm Personal Defense Weapon (PDW) is a pistol capable of firing the NATO standard 9mm cartridge with greater firepower, accuracy, higher probability of hit, and increased reliability than either the current M1911A1, Caliber .45 pistol or Caliber .38 revolver. The prime contractor is Beretta, U.S.A. of Accokeek, MD.

Mission: The PDW will replace the M1911A1, Caliber .45 and Caliber .38 handgun on a one-for-one basis.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(6,740)	2.1	(17,687)	5.7	(17,687)	6.1
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		2.1		5.7		6.1
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		2.1		5.7		6.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Fleet Satellite Communications (FLTSATCOM)

Description: FLTSATCOM consists of a constellation of satellites providing worldwide UHF communications coverage. Hughes was competitively selected to build UHF Follow-on satellites under a multiyear contract. Beginning with Satellite number four (FY 1991) FLTSATCOM will include EHF capabilities.

Mission: To satisfy Navy/other urgent worldwide UHF mobile user communications requirements.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	173.6	(2)	312.6	(3)	249.6
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		173.6		312.6		249.6
RDT&E		16.4		15.9		13.7
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		190.0		328.5		263.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MK-15 CIWS (PHALANX)

Description: The MK-15 Close-In Weapon System (CIWS) is a lightweight, ship mounted, rapid fire gun system using an electronic spotting system to direct projectile line of fire against closing targets. Prime contractors are General Dynamics Corporation of Pomona, CA and General Electric Corporation of Pittsfield, MA.

Mission: To provide a fast reaction, automatic, autonomous gun weapon system as a last ditch defense system to combat the cruise missile and other existing anti-ship missile threats.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(2)	18.9	(18)	59.9	(17)	62.0
Initial Spares		1.0		.7		.5
		<hr/>		<hr/>		<hr/>
Subtotal		19.9		60.6		62.5
RDT&E		7.4		5.9		6.4
Military Construction		-		-		5.4
		<hr/>		<hr/>		<hr/>
TOTAL		27.3		66.5		74.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MK-48 ADCAP Torpedo

Description: The MK-48 Torpedo is a submarine launched, conventional, wire guided acoustic homing anti-submarine and anti-surface underwater weapon. The ADCAP (Advanced Capability) torpedo is designed to go faster, deeper and farther than the current MK-48 torpedo. The contractors are Hughes Aircraft of Fullerton, CA, and Westinghouse Electric Corporation of Cleveland, OH.

Mission: To destroy or neutralize the modern, high speed, deep diving and quiet enemy submarine.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(320)	481.1	(260)	437.8	(240)	350.3
Initial Spares		9.7		4.7		5.4
Subtotal		490.8		442.5		355.7
RDT&E		26.2		30.7		60.3
Military Construction		-		1.4		7.3
TOTAL		517.0		474.6		423.3

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MK 50 Torpedo, Navy

Description: The MK 50 Advanced Lightweight Torpedo (ALWT), is a ship or aircraft launched anti-submarine warfare (ASW) torpedo with improved performance capabilities to counter deeper diving, faster and quieter submarines of the future. The major contractors are Honeywell Inc., of Minneapolis, MN and Westinghouse Electric Corporation of Cleveland, OH.

Mission: To destroy or neutralize enemy submarines.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(140)	197.4	(200)	270.8	(265)	328.3
Initial Spares		4.2		3.2		5.3
		_____		_____		_____
Subtotal		201.6		274.0		333.6
RDT&E		134.3		63.7		44.2
Military Construction		3.4		-		-
		_____		_____		_____
TOTAL		339.3		337.7		377.8



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: MK-75 76mm Gun Mount

Description: This gun mount is the OTO Melara designed, intermediate caliber, dual purpose, high rate of fire gun, scheduled for installation in new construction ships. The Northern Ordnance Division of FMC Corporation, Minneapolis, MN, and OTO Melara of Italy are the producers of the MK-75 gun mount. The FY 1990 procurement provides a rotatable pool for Coast Guard gun overhauls supported by the Navy.

Mission: To provide a minor caliber, high rate of fire, anti-aircraft and anti-surface ship gun.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(2)	7.2	(-)	-
Initial Spares		2.3		2.5		2.7
		<hr/>		<hr/>		<hr/>
Subtotal		2.3		9.7		2.7
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		2.3		9.7		2.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: ASW Targets

Description: This program consolidates the old MK-30 mobile heavyweight target, manufactured by Loral Systems Group, Akron, OH, and the new MK-39 Expendable Mobile ASW Training Target (EMATT). The initial procurement of EMATT in FY 1990 will be from Sippican Ocean Systems, Inc. of Marion, MA. The FY 1991 program will be competitively awarded.

Mission: To provide air, surface, and submarine ASW units with a means to conduct realistic ASW exercise firings.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	13.0	(-)	26.4
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		13.0		26.4
RDT&E		14.9		30.4		5.0
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		14.9		43.4		31.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Unit Level Circuit Switch

Description: The Unit Level Circuit Switch (ULCS) program is a family of telephone switches developed under the cognizance of the Joint Tactical Communication (TRI-TAC) office. The program includes the circuit switches SB-3865 and AN/TTC-42, digital telephones and digital group multiplex equipment. The prime contractor is ITT/DCD of Nutley, NJ.

Mission: The ULCS system provides an automatic secure telephone switching capability to be deployed in different degrees at all echelons throughout the force structure.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	75.7	(-)	48.0	(-)	32.9
Initial Spares		1.7		1.0		.9
		<hr/>		<hr/>		<hr/>
Subtotal		77.4		49.0		33.8
RDT&E		1.9		.1		1.1
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		79.3		49.1		34.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Tactical Air Operations Module,  
Marine Corps

Description: The Tactical Air Operations Module (TAOM) program is designed to develop and produce operations modules which provide for air defense, air traffic control and a data link to external friendly forces for real-time tactical air data. The prime contractor is Litton Corporation of Colorado Springs, CO.

Mission: TAOMs will replace the AN/TYQ-2 and its associated AN/TYQ-3A in the Marine Air Control Squadrons.

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement			
Item	(14) 94.1*	(7) 54.1	(6)*59.5
Initial Spares	4.9	6.1	17.4
	_____	_____	_____
Subtotal	99.0	60.2	76.9
RDT&E	2.2	1.1	2.7
Military Construction	-	-	-
	_____	_____	_____
TOTAL	101.2	61.3	79.6

\* Includes four FY 1989 TAOMs (\$26.8M) and two FY 1991 TAOMs (\$12.1M) being procured with National Guard & Reserve Equipment (NGRE,D) funds.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Personal Defense Weapon, 9mm,  
Marine Corps

Description: The 9mm Personal Defense Weapon (PDW) is a pistol capable of firing the NATO standard 9mm cartridge with greater firepower, accuracy, higher probability of hit, and increased reliability than either the current M1911A1, Caliber .45 pistol or Caliber .38 revolver. The prime contractor is Beretta, U.S.A. of Accokeek, MD.

Mission: The PDW will replace the M1911A1, Caliber .45 and Caliber .38 handgun on a one-for-one basis over a ten year period. The PDW will provide close in self defense for personnel who are not riflemen such as law enforcement personnel, aviators, and others.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(13,589)	3.2	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		3.2		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		3.2		-		-

PROGRAM ACQUISITION COSTS  
(\$ MILLIONS)

System Nomenclature: 9mm Personal Defense Weapon,  
Air Force

Description: The 9mm Personal Defense Weapon will be a pistol capable of firing the NATO standard 9mm cartridge with greater firepower, higher probability of hit, and increased reliability, availability, and maintainability than either the current M1911A1, caliber .45 pistol or caliber .38 revolver. The prime contractor is Beretta, U.S.A. of Accokeek, MD.

Mission: The Personal Defense Weapon provides close-in self-defense for law enforcement personnel, aviators, and others.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(9,000)	1.9	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		1.9		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		1.9		-		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Defense Meteorological Satellite Program  
(DMSP)

Description: Program consists of two satellites maintained in near polar orbit at all times. Data are recorded globally, stored onboard the satellites, then transmitted to either of two CONUS receiving stations and simultaneously relayed via commercial communications satellites to the Global Weather Control at Offutt AFB. Prime contractor is the Radio Corporation of America (RCA), Hightstown, NJ.

Mission: DMSP provides recorded (stored) visual and infrared imagery and other specialized meteorological data from the entire earth to support special strategic missions; provides real-time readout of meteorological data to mobile Air Force and Navy terminals at key locations throughout the world to support tactical operations.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(1)	157.3	(1)	116.6	(1)	147.8
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		157.3		116.6		147.8
RDT&E		51.4		47.6		49.7
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		208.7		164.2		197.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Defense Satellite Communications System  
(DSCS)

Description: The DSCS consists of a satellite segment and a ground terminal segment. The satellite segment includes four active satellites on-orbit and will include two on-orbit spares when the full on-orbit complement is reached. The system provides worldwide coverage. Prime contractor for the satellite system is the General Electric Company, Valley Forge, PA.

Mission: It provides secure, long-distance communications supporting command and control, intelligence, warning, Presidential and other special user requirements.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	53.7	(-)	48.2	(-)	63.9
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		53.7		48.2		63.9
RDT&E		32.6		25.1		16.5
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		86.3		73.3		80.4



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: High Mobility Vehicle (HMMWV)  
Air Force

Description: The 5/4-Ton Truck is a family of high mobility multi-purpose wheeled vehicles (HMMWV) utilizing a common chassis. The HMMWV will be configured to meet multi-mission roles to include command control, TOW weapons platform, communications, and personnel carrier.

Mission: The HMMWV will be used by the Air Force to transport personnel and light cargo for forward air control ground-to-air radio, perimeter security and combat support roles.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(180)	4.3	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		4.3		-		-
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		4.3		-		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Mobile Armored Reconnaissance Vehicle  
(MARV)

Description: The Light Armored Vehicle (LAV), manufactured by the Diesel Division of General Motors, was selected as the vehicle for the MARV. It will be procured with minor modifications. A second contract will be used to accomplish installation of a gun system in the vehicle.

Mission: The MARV provides capability to survey runaway damage and unexploded ordnance at an installation after attack by enemy air or ground forces. Explosive Ordnance Disposal (EOD) personnel and equipment will be transported to dud or delayed munitions so that they may accomplish render safe procedures. Integral to the vehicle will be a .50 caliber, single shot weapon providing stand-off munitions disruption capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(20)	17.9	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		17.9		-		-
RDT&E		2.7		0.3		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		20.6		0.3		-

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: NAVSTAR Global Positioning System

Description: Provides a global, three-dimensional positioning, velocity and time information system for aircraft, artillery, ships, tanks and other weapons delivery systems. Prime contractors are General Dynamics of San Diego, CA and Rockwell International of Seal Beach, CA.

Mission: To provide a global system of satellites for position locating purposes.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	74.4	(-)	48.0	(-)	201.7
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		74.4		48.0		201.7
RDT&E		46.4		32.9		48.9
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		120.8		80.9		250.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Medium Launch Vehicle (MLV)

Description: Provides for procurement of Medium Launch Vehicles for use in launching medium weight satellites into orbit. The prime contractor for the Delta II is McDonnell Douglas. The contractor for the Atlas II is General Dynamics.

Mission: The Delta II Launch Vehicle will launch NAVSTAR Global Positioning System satellites and the Atlas II will launch Defense Satellite Communications System satellites.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(8)	255.4	(4)	164.9	(5)	269.7
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		255.4		164.9		269.7
RDT&E		-		-		-
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		255.4		164.9		269.7

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Over-the-Horizon Backscatter (OTH-B) Radar

Description: The OTH-B radar provides wide area, long-range, all-altitude surveillance of the coastal approaches out to 1,800 nautical miles; increases warning time available for survival of retaliatory forces; provides decision time for the National Command Authority consistent with missile warning requirement; and enhances deployment options of defense forces.

Mission: Improve our presently limited capabilities for tactical early warning of bomber and air-to-surface missile attack on North America.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	159.0	(-)	193.9	(-)	*209.4
Initial Spares		6.2		5.5		3.5
Subtotal		165.2		199.4		213.6
RDT&E		18.4		20.2		12.9
Military Construction		17.5		-		28.0
TOTAL		201.1		219.6		254.5

\*Funded in the Drug Interdiction appropriation.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Space Boosters

Description: Provides for the procurement of Titan IV Space Launch Vehicles. The Titan IV can accommodate the Centaur upper stage to launch the Department's heavier space payloads. Martin Marietta was competitively selected as the prime contractor.

Mission: Provides consolidated launch support for requirements common to space programs. Program provides capability to launch critical DoD operational payloads.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(3)	339.8	(3)	230.3	(2)	208.6
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		339.8		230.3		208.6
RDT&E		462.1		361.5		234.3
Military Construction		-		89.0		29.2
		<hr/>		<hr/>		<hr/>
TOTAL		801.9		680.8		472.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Space Shuttle Operations

Description: Procures upperstage vehicles that, in conjunction with the space shuttle, place operational satellites into mission orbit. Also procures ground equipment to support launch of DOD payloads on the space shuttle.

Mission: Provide the equipment required to support launch of DoD payloads on the space shuttle.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	6.6	(-)	28.2	(-)	15.1
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		6.6		28.2		15.1
RDT&E		37.7		54.6		19.1
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		44.3		82.8		34.2

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: DEW Radar Stations/North Warning System,  
Air Force

Description: The North Warning System will replace the 31 existing DEW Line Radars with 15 long range minimally attended radars and 39 unattended short-range gap-filter radars. This system will enhance our existing air surveillance capability and reduce operation and maintenance costs.

Mission: Improve the North American Aerospace Defense Command's atmospheric surveillance capability.

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement			
Item	(-) 198.5	(-) 182.6	(-) -
Initial Spares	-	13.4	6.6
Subtotal	198.5	196.0	6.6
RDT&E	-	-	1.0
Military Construction	-	-	-
TOTAL	198.5	196.0	7.6



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Unmanned Aerial Vehicles (UAVs), Defense

Description: This program provides management oversight of DOD UAV's to ensure cost effective approaches for fielding a needed capability for the conventional forces. The principal near-term objective is the procurement of a short-range UAV system to meet all Service needs.

Mission: To provide complementary capabilities to manned systems in the functional areas of electronic warfare, intelligence, reconnaissance, surveillance, and command, control, and communications. UAV systems will also be employed when air, sea, and ground based manned systems require additional capabilities to operate within acceptable attrition rates.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(4)	35.3	(-)	18.3	(-)	17.0
Initial Spares		14.8		10.6		7.0
		<hr/>		<hr/>		<hr/>
Subtotal		50.1		28.9		24.0
RDT&E		40.3		82.3		79.6
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		90.4		111.2		103.6

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: LHX Light Armed Scout Helicopter

Description: The LHX Light Armed Scout Helicopter program will develop a light helicopter series which will replace the Army's rapidly aging fleet of OH-58 and AH-1 aircraft. The LHX will enter full scale development in FY 1991. The major contractors are McDonnell Douglas Company/McDonnell Douglas Helicopter Company/Bell Helicopter Textron, Inc., Mesa, AZ, and Boeing/Sikorsky, Philadelphia, PA.

Mission: The LHX will be used for observation and attack missions.

		<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
		<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
Procurement				
Item	(-)	-	(-)   -	(-)   -
Initial Spares		____-	____-	____-
Subtotal		-	-	-
RDT&E   Including T-800 engine		177.2	274.2	465.1
Military Construction		____-	____-	____-
TOTAL		177.2	274.2	465.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Non-Line of Sight (NLOS) Missile

Description: NLOS, also known as Fiber Optic Guided Missile (FOG-M), is a mobile non-line of sight (indirect fire) air defense system. As NLOS is a key component of the Forward Area Air Defense System (FAADS), it will be specifically designed and engineered to integrate with the other components of the FAAD system. It will have a secondary role of providing defense against moving and stationary armored targets. NLOS utilizes a fiber optic data link for command guidance by one operator who guides the missile to impact via a video display console. The system is composed of the fiber optic guided missile and launcher/gunner station which can be mounted on either a HMMWV (light forces) or an MLRS-type tracked vehicle (heavy forces). The contractors are Boeing Aerospace, Renton, WA and Hughes Aircraft, El Segundo, CA.

Mission: It primarily provides low altitude defense for ground forces against attacks by low-flying masked and stand-off rotary-winged targets.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		<u>-</u>		<u>-</u>		<u>-</u>
Subtotal		-		-		-
RDT&E		142.4		122.1		99.1
Military Construction		<u>-</u>		<u>-</u>		<u>-</u>
TOTAL		142.4		122.1		99.1

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Air to Air Missile (AAAM)

Description: This program initiates demonstration and validation of an advanced air-to-air missile. AAAM will be compatible with the F-14, F/A-18, ATA/ATF and F-15.

Mission: Increase fire power in the outer air battle, meeting the threat of the mid 1980s and beyond.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		—		—		—
Subtotal		-		-		-
RDT&E		29.6		70.4		84.2
Military Construction		-		-		-
		—		—		—
TOTAL		29.6		70.4		84.2

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Tactical Fighter

Description: The Advanced Tactical Fighter (ATF) program will develop the next generation air superiority fighter for introduction in the late-1990's. The ATF is being designed to penetrate enemy airspace and achieve first-look, first-kill capability against multiple targets. Program emphasis from the outset has been balanced on affordability, performance, survivability, and reliability/maintainability. Commonality for a Navy ATF version has been aggressively pursued to realize maximum cost savings in development and production. Two competing contractor teams have been established for ATF Demonstration/Validation. Northrop (Los Angeles, CA) is teamed with McDonnell Douglas while Lockheed (Burbank, CA) leads General Dynamics and Boeing on the other team.

Mission: Gain and maintain air superiority advantage of our fighter forces over the continually evolving threat.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		_____		_____		_____
Subtotal		-		-		-
RDT&E		674.5		1,045.9		1,047.4
Military Construction		-		-		-
		_____		_____		_____
TOTAL		674.5		1,045.9		1,047.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Aircraft Engine Component Improvement Program

Description: The Aircraft Engine Component Improvement Program (CIP) provides engineering support to ensure that engines continue to safely support current mission of host aircraft, reduce cost of ownership, improve system operational readiness, and keep older engines operational. The highest priority of CIP is to address all safety of flight issues particularly in reduction of air aborts, and engine related safety incidents. The program is used to identify life limiting components, develop and qualify repair procedures for worn or cracked parts, investigate field and test failures to determine significance and develop corrective action, reduce maintenance and spare parts costs, and evaluate proposed engineering changes throughout the operational life of the system.

Mission: Aircraft engine component improvement programs are initiated after an engine/component has successfully completed all of the required development tests, meets the specification in the development contract, and the first production funded aircraft using the engine/component is accepted.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		_____		_____		_____
Subtotal		-		-		-
RDT&E		132.9		111.6		135.5
Military Construction		-		-		-
		_____		_____		_____
TOTAL		132.9		111.6		135.5

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Advanced Launch System

Description: A new family of space launch vehicles that can provide responsive, reliable, flexible, low cost access to space across the broad range of expected payload sizes, orbits and launch rates.

Mission: Provide low cost high launch rate/heavy capability.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RDT&E*		-		86.2		60.3
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		-		86.2		60.3

\* Excludes Strategic Defense Initiative funding.

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Strategic Defense Initiative (SDI)

Description: This research program examines the feasibility of a system capable of engaging ballistic missiles and warheads at all points along their trajectories, from launch to near impact. The research program is divided into five key technology areas: directed energy weapons; kinetic energy weapons; surveillance, acquisition, tracking, and kill assessment systems; systems analysis/battle management; and survivability, lethality, and key technologies (space logistics and power). During FY 1987 the Defense Acquisition Board recommended that certain SDI concepts and technologies enter the demonstration and validation phase of the defense acquisition process. The purpose of this phase is to evaluate -- through analysis, experimentation, and simulation -- the feasibility of critical elements of a potential Strategic Defense System.

Mission: To conduct research on those defensive technologies and related systems that may enable the destruction of ballistic missiles and warheads in flight.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RDT&E		3,627.4		3,571.2		4,460.0
Military Construction		83.0		10.5		11.3
		<hr/>		<hr/>		<hr/>
TOTAL		3,710.4		3,581.7		4,471.3



PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Air Defense Initiative

Description: The Air Defense Initiative is a program of interrelated research and development projects with the emphasis on developing technologies for strategic air defense of North America against the threat posed by bombers and cruise missiles. It will require radically improved surveillance technologies, intercept missiles, anti-submarine warfare capabilities, and battle management techniques.

Mission: To defend against future low-observable cruise missiles and bombers.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RDT&E		155.1		149.9		246.9
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		155.1		149.9		246.9

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: Long Range Conventional Stand-Off Weapon

Description: This development effort demonstrates critical technologies required to field a Conventional Long-Range Cruise Missile.

Mission: Support non-nuclear missions of the Air Force and the Navy.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RDT&E		33.4		18.8		55.4
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
TOTAL		33.4		18.8		55.4

PROGRAM ACQUISITION COSTS  
(\$ Millions)

System Nomenclature: National Aerospace Plane

Description: This program is a joint DoD/NASA effort designed to investigate and develop propulsion, structures, and other critical technologies to enable development of a hypersonic aerospace vehicle capable of delivering payloads into orbit. The NASP is envisioned to be an airbreathing, hydrogen fueled, single-stage-to-orbit horizontal takeoff and landing vehicle.

Mission: Significant benefits will be a highly responsive military aircraft, flexibly based, very low cost space launch, and economical civil hypersonic transport.

	<u>FY 1989</u>		<u>FY 1990</u>		<u>FY 1991</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
RD&E		228.4		192.5		158.0
Military Construction		-		-		-
		<hr/>		<hr/>		<hr/>
*TOTAL		228.4		192.5		158.0

\*DoD funding only.